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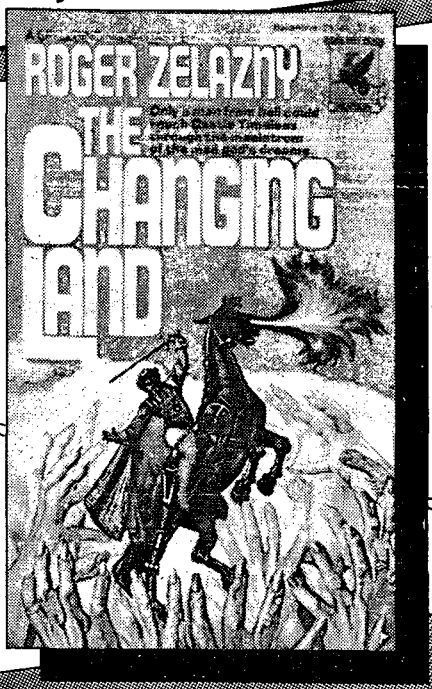

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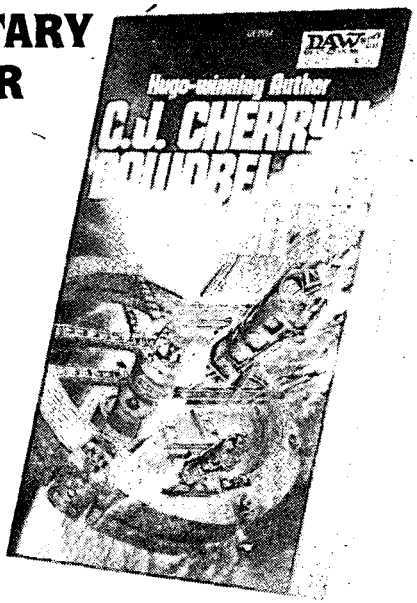

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EDITORIAL: DRAWING THE LINE

by Isaac Asimov

art: Frank Kelly Freas

The freedom of speech and press is one of the cornerstones of personal liberty, and the Federal government is prevented from interfering with it by the First Amendment to the Constitution.

Yet no matter how devoted we may be to absolute freedom of speech and press, we must draw the line somewhere. In 1919, that paladin of justice, Oliver Wendell Holmes, Jr., said, in a Supreme Court decision, "The most stringent protection of free speech would not protect a man in falsely shouting fire in a theater and causing a panic."

What's more, we have slander and libel laws to protect people from having their reputations ruined by calumnies spread deliberately and falsely; and freedom of speech and press cannot possibly be stretched far enough to cover that. A man who speaks and writes freely in order to commit slander or libel is a villain who well deserves punishment.

What of cases, though, where speaking or writing does no actual damage to specific individuals, but does give offense? There, I suppose, we enter a gray area.

It is, after all, impolite to give offense. A gentleman, or a lady, strives not to do so, even if that means maintaining a discreet silence or cleverly skirting the truth.

On the other hand, isn't truth important? Is it correct to live a life of hypocrisy and genteel evasion?

To be sure, the little white lies of social intercourse keep the wheels of life turning smoothly—but do they not also erode the character and imprison the soul in deadly and stultifying make-believe?

Well, what would *you* do? My bet is that you white-lie in your teeth, exactly as I do. Anyone who tells the unvarnished truth (his own version, that is) at all times and to all people is asking to be torn apart by the maddened multitude; and you and I would probably be among the maddened multitude, if we found ourselves subjected

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to one too many helpings of the unvarnished truth.

But wait, that's just the give and take of ordinary life with its small talk and nonsense.

What about literature? Suppose we are dealing with a writer who is more or less dedicated to depicting life as he or she sees it—to portraying people as they are—to explaining the great issues of the day with the fearless power of truth. And what if an editor came to him or her and said, "Sorry, Writer, but you are being offensive, so I can't publish your story."

Would not the author be correct to be mightily offended on his own account, and would not the editor be revealed as a pusillanimous cur who doesn't deserve to breathe the air of a free America?

Well, it depends— I'm as idealistic a defender of free speech and press as almost anyone, but it depends—

Suppose, for instance, that we received a story that was an extraordinarily good one, but which was riddled with racial or religious slurs and stereotypes. Suppose it could not possibly be published without offending blacks or Jews or Episcopalians among our readers—and, further, offending many who are none of these but who resent such slurs and stereotypes on principle.

It would not actually be against the law to write such things, but the editorial staff of this magazine would surely try to persuade the writer to cut out the offensive portions. And if the writer would not do it, or could not do it without ruining the story—then we simply wouldn't print it, however high its quality.

One consideration is certainly that the offense may cause a serious loss of readership and perhaps fatally damage the magazine—but it goes much deeper than that.

There was a time, as recently as forty years ago, when racial and religious slurs were found throughout American literature. Such things were taken for granted. —But we've learned better. We no longer make the casual assumption that those of us who are descended from West European Christians are first-class and everyone else is second-class.

For one thing, we know what casual racism has led to in the recent past, and we understand what it may yet lead to in the future. A world in which oppressed peoples are no longer willing to be oppressed is a dangerous place, and casual racism is very much like falsely shouting fire in a theater and causing a panic, and we won't—be a party to it.

I dare say there are few of you who are reading these words who fail to see my point and who would quarrel with it.

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But now we come to various bodily functions, chiefly involving excretion and reproduction which, by custom in past decades, were not discussed in "polite society"; and to various words, generally termed "vulgar" in the dictionary, which were likewise taboo.

When I was breaking into the field, there was a firm line drawn that excluded such things and the fact was perfectly well-understood. Science fiction stories were pure; and the characters neither excreted nor engaged in any form of sex-play in the sight or hearing, so to speak, of the readers.

Such a thing couldn't help but remove the stories from reality, but there were laws preventing anyone from reaching for that reality. Regardless of any dedication to free speech, writers were as automatically careful to avoid sex as they were careless about racism.

But times have changed, and the law has retreated in this area. It has become permissible to refer to the genital organs and to sexual actions, not only by their prissy Latin names but by their vulgar Anglo-Saxon ones as well. In fact, there are no forbidden words or actions. You can read all of them in almost any book and hear all of them in almost any movie. Pornography is openly sold, read, and viewed; and even books and movies that are not classed as pornography are massively drenched in sex.

So what do we do in this magazine?

We have no choice but to change with the times to some extent. For one thing, writers, having the freedom to describe what they once could not, and use words that were once forbidden, do so, and find that in doing so they can make points and work out situations in ways they could not otherwise. So they do it and resent being told they can't, and we therefore accommodate them as much as possible.

But only as much as possible. Here, too, we must draw the line.

There are many writers (and not merely in science fiction) who lay on the sex and vulgarity with trowels—either because of the exuberance of their personalities or because they think (and not without justification) that in that direction lies best-sellerdom and the big money.

Well, that may be so; but in our magazine, they'll have to do without that. To be perfectly frank, it is very unlikely that selling a story to our magazine is a direct path to best-sellerdom and big money, so it's no use twisting a story to aim for it. If sex and vulgarity are essential to the plot and are included only to the extent that they are essential, then we may buy the story if it is good enough. If it is there only for shock-value, then out it comes, or we don't buy.

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Then, too, an emphasis on sex and vulgarity is offensive to many of our readers. There's no point in arguing whether this should or should not be so. It *is* so, and we would rather please than offend. If a story is good enough, we'll count on the understanding of our readers and hope that the potential offensiveness will be forgiven, but the story will have to be good enough. And if the potential offensiveness strikes us as being unreasonably high then no amount of good is good enough. And when a situation is borderline, George's decision is final.

My own personal feeling, by the way, is that we can endure quite a bit of sex, provided we do without the vulgarity.

Nor is it any use saying, "But that's the way most people speak!" —Most people also speak with sharply limited vocabularies and totally perverted grammar, and I don't consider *that* something for writers to imitate.

Writers in the United States have at their disposal a language with the largest and most delicately varied vocabulary of any language in the world—and if they can't find the appropriate words to describe *any* situation without having to make use of the limited and tasteless vocabulary of the uneducated and illiterate (except where it undeniably serves a literary purpose to do so) then they don't write well enough to meet our standards.

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ON BOOKS
by Baird Searles

Dance of the Tiger by Björn Kurtén, Pantheon, $10.95.
The Ring of the Nibelung, Wagner's epic drama illustrated by Ul de Rico, Thames and Hudson, $39.95.
Solar Wind by Peter Jones, Perigee Books, $10.95 (paper).
Di Fate's Catalog of Science Fiction Hardware by Vincent Di Fate and Ian Summers, Workman, $8.95 (paper).
The Dictionary of Imaginary Places by Alberto Manguel and Gianni Guadalupi, Macmillan, $24.95.
The Door in the Wall and Other Stories by H. G. Wells, David R. Godine, $5.95 (paper).
The Book of Dreams by Jack Vance, DAW books, $2.25 (paper).
Trullion: Alastor 2262; Marune: Alastor 933; Wyst: Alastor 1716 by Jack Vance, DAW Books, $2.25 each (paper).
Science Fiction Origins edited by William F. Nolan and Martin H. Greenberg, Fawcett/Popular Library, $2.25 (paper).
The Great Science Fiction Series edited by Frederik Pohl, Martin Harry Greenberg and Joseph Olander, Harper, $16.95.

Though I was intrigued by the idea and setting of Björn Kurtén's *Dance of the Tiger,* I was at first very unsure of the justification of reviewing it in this column. A "realistic" novel that takes place in the past, even though it's a past of 30,000 years ago, would still only be a historical novel. Or would it?

Most historical fiction, after all, is speculative to a degree, and the more remote the cultural setting, the more speculation is involved. When we get back to prehistory, a great amount of speculation must be used, for while we have a good deal of knowledge about early humanity, it's almost all of objects. With no literature, no arts save painting, which concentrated more on the animal life of the day than on the human, we really have very little knowledge as to what these people were "like."

The author himself, a noted Finnish paleontologist, says in his brief introduction that the novel is not science; he suggests that it might be called "paleo-fiction." With all due respect, so far as I'm concerned it's true science fiction; it is fiction based on scientific speculation, in this case in the area of anthropology.

And of particular interest to the SF reader, it deals with the only time in history when man interracted with another intelligent spe-

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cies—or to be precise, subspecies—Neandertal man. (With the possible exception, of course, of humanity's mostly disgraceful relationship with the porpoise and its relatives.)

Dance of the Tiger is certainly a far cry from those books of my boyhood which all seemed to be named something like *Og, Son of Ugh* and the climax of which was invariably the discovery of fire, but I must say I got something of the same old thrill at the opening words, which are "The mammoths broke cover . . . "

But while the book is often thrilling, and there's lots of action in a strange and luminous landscape complete with mammoth and sabre-tooth tiger (black, for a change), wooly rhinoceros and musk ox, its major fascination is the two cultures, of Neandertal and Cro-Magnon-man-to-be, as Kurtén has envisioned them. They are far from the clichéd "caveman."

For one thing, they've already discovered fire, which is a relief. For another, the dialogue is jarringly modern (one doesn't expect primitive man to come out with "Tiger, my dear fellow, what a surprise!"). Kurtén justifies this by noting that so far as they were concerned, they were speaking a modern language, so why not translate it into easy modern terms, rather than "spurious archaisms." Having just finished *The Egyptian* by Mika Waltari (another Finn) for the umpteenth time and having noted again how the stilted but poetic archaisms in which it is written add wonderfully to its atmosphere, I'm not sure I go along with Kurtén's view as a general one, but after a few pages in *Dance of the Tiger,* it does sound easy and quite natural.

The depiction of the Neandertal culture is particularly interesting. They are seen as slow, traditional, and very courteous, almost Oriental in their extensive use of honorifics, circumlocution, and apology. I've never thought of Neandertal man as particularly lovable before, but how can you resist a lady known as Miss Woad daughter of Angelica Parnassia?

In his introduction, "A Challenge To the Reader," the author sets us a scientific puzzle that is as yet unsolved with any certainty. Why did Neandertal man vanish so rapidly (in only a few thousand years, some think)? His suggested answer lies in the novel but is never stated directly. I can say that it is nothing so simple as genocide by the Cro-Magnons. In fact, the major situation in the book is a sort of coalition of the two races against half-breed twin brothers who have instituted something like a reign of terror for both populations in what is now part of Scandinavia.

With some pride I can say that I solved part of the puzzle from

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the cultural clues given, but did not carry it through to its (and the Neandertals') logical conclusion. In an afterward, the author spells it out.

The puzzle is essentially the point of the novel, but another major theme for me was the representation of an Eden, perhaps the most believable I've ever come across. Here was a time and place where man (both kinds) did not live in violence, and while the story was about the beginning of the end for that Eden, the entrance of strife, it's still a wonderful conception.

And maybe I haven't made it clear that the book is damn good reading, the most original I've met up with in a long time. I highly recommend it.

Since we started with an off-the-wall book, let's go on to another that's not quite the run-of-the-mill selection usually reviewed here. This one, in fact, might be called run of De Mille, since it is a spectacular production in glorious technicolor. My Lord, what glorious technicolor!

Last year a children's fantasy called *The Rainbow Goblins* caused some stir. By the Italian Ul de Rico, it was a slight tale woven around a host of startlingly beautiful paintings. Now de Rico has illustrated a volume of *The Ring of the Nibelung,* Richard Wagner's music drama. It is breathtaking.

For those of you who are not opera buffs, let me note that Wagner's cycle of four operas is one of the epic fantasies of all time, chock full of heros and dragons, giants and dwarfs, gods and a magic ring, all based on Germanic legend. De Rico has done 30 paintings as illustrations that are equally epic. I have noted before the frustration for a reviewer in trying to convey the quality of paintings; in this case, the frustration becomes agony. I can only suggest the huge landscapes of the 19th century, with storms sweeping across the hills and castles perched precariously on crags. Then light them, not realistically, but with vivid sunset colors, blazing magic fire red, luminous Rhine green. Build a golden Valhalla that soars to the sky, and set before it Bifrost, the rainbow bridge, in colors only equalled by the real thing. Nope, not good enough, Searles. You'll just to see this one for yourselves, gentle readers.

Moving right along (I have a lot to get in, since I'm off the next issue), there are two more art books worth mentioning, but with the same inherent problem.

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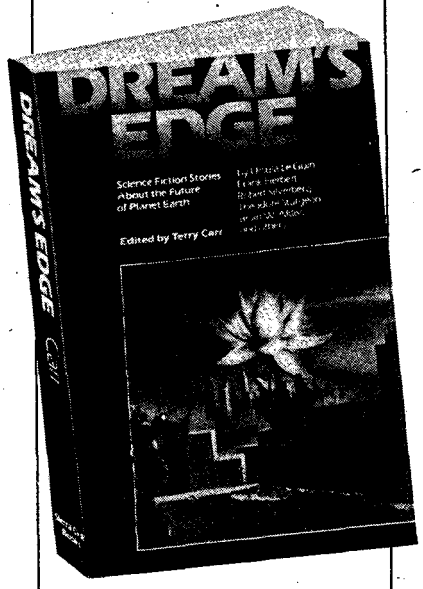

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ings by the talented Englishman, Peter Jones. Since most of those books were English editions of well-known works, this collection becomes a series of illustrations for such stories as *The Fabulous Riverboat, The Birthgrave, The Nightland, Orn, Vermilion Sands,* and even a couple of Perry Rhodan novels. Jones's palette is brilliant, his machines are as intricately beautiful as any by Foss, his aliens are intriguingly conceived; it's only with his humans that I have some reservations. The men are suitably iron-jawed and heroic-looking, but there's a bit too much of Frazetta's influence in his ladies. Their breadth of buttock implies that they'd be dandy for child bearing and staying put in a high wind, but collectively, as seen here, become a bit grotesque. Nevertheless, this is a collection of handsome paintings well reproduced and I recommend it.

As I do, to a degree, *Di Fate's Catalog of Science Fiction Hardware,* by Vincent Di Fate and Ian Summers. I'd never been that impressed with Di Fate's drawings and paintings before, but they show up well in this book. Di Fate is a more "painterly" artist than those of the hard-edged school of Jones; brush strokes show in his work, which makes them less realistic, but somehow more serious as paintings.

This collection is given something in the way of conceptual content by being divided into sections, such as "transportation," "environments," and so on. The paintings illustrate artifacts appropriate to these categories which are sometimes directly related to a specific work of SF (James White's Hospital Station, for instance), sometimes more general. This is because the paintings originally were from various sources such as paperback covers, illustrations for magazine articles, etc.

This gives the book a somewhat cobbled-together quality, but since there's lots of wordage on how things work, plus diagrammatic drawings and blueprints, the high-tech freaks in particular should love it.

Low-tech people like myself, on the other hand, will probably be just as delighted with *The Dictionary of Imaginary Places* by Alberto Manguel and Gianni Guadalupi. There have been fantasy atlases before, but this one is magnificent. Each entry (Middle Earth, Narnia, Baskerville Hall) has a detailed description of the place, its peculiarities and inhabitants, sometimes wonderfully straight-faced when coping with the madder locales. (Try describing Wonderland seriously—"The fauna . . . is unique because most animals can speak English and some, like the mice, a little French.")

There will also be entries for what might be called sub-locales

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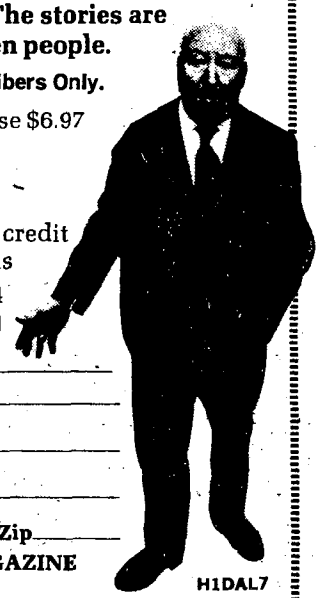

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(Minas Tirith) within larger ones, and most entries are accompanied by a handsome black-and-white drawing, a map, or both. The maps, by James Cook, are very fine. I was happy to see entries for Pellucidar (with an impressive full-page map), Gormenghast, and Moominland; in fact, the only place that I checked that was lacking was Patricia McKillip's Hed, and that may be too recent a creation, considering how long this "dictionary" must have taken to complete.

This month, so far, seems to have been devoted to oddities of one kind or another, books that are not your usual genre novel. Before we get to some of those, one more book from out of left field. This one is by that rising young talent, H. G. Wells, and is called *The Door in the Wall and Other Stories.*

There's an interesting story behind this charming reprint. The original volume was published in 1911, in a limited edition of 600 copies. While the content consisted of short stories that had already appeared in other collections, what made this one unusual was that it was one of the first experiments in using photographs as illustration, and the "illustrator" here was the artist-photographer Alvin Langdon Coburn. His photographs—one per story—are beautiful, slightly grainy, atmospheric shots, and while the idea never did work (remember those ghastly photomontage covers some magazines and paperbacks were inflicted with back in the '50s?), this early experiment is still wonderfully realized.

As for the content, if you've not read Wells's short stories, you have a treat in store. They are, even now, wittily written and conceptually interesting.

Now back to the usual, but hardly the ordinary, since we can note an event that has been anticipated for some 16 years. Jack Vance's *The Star King* appeared in 1964, and was irrevocably the first of a five-part series called "The Demon Prince" series. The next two appeared in rapid order, then nothing—for a dozen years, nothing. Finally, last year, the fourth book appeared, and now, the series is completed! The fifth novel is out and it's titled *The Book of Dreams.* I won't go into detail about it, since I spent a fair amount of space on *The Face* (#4 in the series) some months back. But its mere existence surely had to be announced.

There are also some Vance reissues well worthy of note. The three delightful Alastor books have been reprinted: *Trullion: Alastor 2262, Marune: Alastor 933,* and *Wyst: Alastor 1716.* (The last named was in print in 1978 for about two minutes.) Alastor is a star cluster,

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and each of the worlds therein has a number as well as a name, hence the titles; the books are unconnected save for that. They are among my favorites of Vance's works; not only do they have some of the best of his dizzier cultures, but their plots are as wonderfully, outrageously melodramatic as any 19th century operetta. The reprints also have nicely matching covers. A good set to have.

Finally, two anthologies of more interest than the usual boring, thrown-together potpourri. The first, *Science Fiction Origins,* edited by William F. Nolan and Martin Greenberg, is rooted in that phenomenon so frequent in SF, the expansion of a short work into a novel. Here are the short stories, novelettes, and novellas that were to become Bradbury's *Farenheit 451,* Zelazny's *The Dream Master,* Dick's *The Three Stigmata of Palmer Eldritch,* Collins's *Tomorrow and Tomorrow* (Hunt Collins is in reality Evan Hunter), Nolan's *Space For Hire,* Silverberg's *The Time Hoppers,* and Clarke's *Childhood's End.* The last is particularly interesting; the seedling novelette, "Guardian Angel," has not been reprinted since its initial publication. All in all, fascinating for those concerned with the history *or* the craft of science fiction.

The other anthology is also built around a particular science fictional form, the series with which the field is riddled (literally and figuratively). *The Great Science Fiction Series,* edited by Frederik Pohl, Martin Harry Greenberg, and Joseph Olander, is a sampler of stories from 21 different series, such as Anderson's Nicholas Van Rijn, Aldiss's Hothouse, Ballard's Vermilion Sands, Asimov's Wendell Urth, Leiber's Change War, and McCaffrey's Helva and Dragon. There's a tale from Gavagan's Bar, and another from The White Hart. Each has an introduction by the author, and is followed by a handy bibliography, charting the stories of each series. Certainly a good book for the novice, and even the aficionado could well use it for an intro to series he's missed.

Finally, a hail and farewell to *Galaxy Magazine,* the reports of whose death I hope are greatly exaggerated; but considering the state of its health over the past few years, I'm afraid they are not. As one who bought the first issue off the stands, I remember the great days of stories by Heinlein, Asimov, Bester, and Sturgeon, covers by Finlay and Emsh, with much fondness.

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UNICORN VARIATION

by Roger Zelazny

art: Jack Gaughan

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Mr. Zelazny, his wife, Judith, and his two sons, Devin and Jonathan, live in Santa Fe, New Mexico. He began writing professionally in 1962, and made the transition to full-time writing just seven years later. Recent books of note include Roadmarks *and* Changeling.

A bizarrerie of fires, cunabulum of light, it moved with a deft, almost dainty deliberation, phasing into and out of existence like a storm-shot piece of evening; or perhaps the darkness between the flares was more akin to its truest nature—swirl of black ashes assembled in prancing cadence to the lowing note of desert wind down the arroyo behind buildings as empty yet filled as the pages of unread books or stillnesses between the notes of a song.

Gone again. Back again. Again.

Power, you said? Yes. It takes considerable force of identity to manifest before or after one's time. Or both.

As it faded and gained it also advanced, moving through the warm afternoon, its tracks erased by the wind. That is, on those occasions when there were tracks.

A reason. There should always be a reason. Or reasons.

It knew why it was there—but not why it was *there*, in that particular locale.

It anticipated learning this shortly, as it approached the desolation-bound line of the old street. However, it knew that the reason may also come before, or after. Yet again, the pull was there and the force of its being was such that it had to be close to something.

The buildings were worn and decayed and some of them fallen and all of them drafty and dusty and empty. Weeds grew among floorboards. Birds nested upon rafters. The droppings of wild things were everywhere; and it knew them all as they would have known it, were they to meet face to face.

It froze, for there had come the tiniest unanticipated sound from somewhere ahead and to the left. At that moment, it was again phasing into existence and it released its outline which faded as quickly as a rainbow in hell, but the naked presence remained beyond subtraction.

Invisible, yet existing, strong, it moved again. The clue. The cue. Ahead. *A gauche.* Beyond the faded word **SALOON** on weathered board above. Through the swinging doors. (One of them pinned alop.)

Pause and assess.

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Bar to the right, dusty. Cracked mirror behind it. Empty bottles. Broken bottles. Brass rail, black, encrusted. Tables to the left and rear. In various states of repair.

Man seated at the best of the lot. His back to the door. Levis. Hiking boots. Faded blue shirt. Green backpack leaning against the wall to his left.

Before him, on the tabletop, is the faint, painted outline of a chessboard, stained, scratched, almost obliterated.

The drawer in which he had found the chessmen is still partly open.

He could no more have passed up a chess set without working out a problem or replaying one of his better games than he could have gone without breathing, circulating his blood or maintaining a relatively stable body temperature.

It moved nearer, and perhaps there were fresh prints in the dust behind it, but none noted them.

It, too, played chess.

It watched as the man replayed what had perhaps been his finest game, from the world preliminaries of seven years past. He had blown up after that—surprised to have gotten even as far as he had—for he never could perform well under pressure. But he had always been proud of that one game, and he relived it as all sensitive beings do certain turning points in their lives. For perhaps twenty minutes, no one could have touched him. He had been shining and pure and hard and clear. He had felt like the best.

It took up a position across the board from him and stared. The man completed the game, smiling. Then he set up the board again, rose and fetched a can of beer from his pack. He popped the top.

When he returned, he discovered that White's King's Pawn had been advanced to K4. His brow furrowed. He turned his head, searching the bar, meeting his own puzzled gaze in the grimy mirror. He looked under the table. He took a drink of beer and seated himself.

He reached out and moved his Pawn to K4. A moment later, he saw White's King's Knight rise slowly into the air and drift forward to settle upon KB3. He stared for a long while into the emptiness across the table before he advanced his own Knight to his KB3.

White's Knight moved to take his Pawn. He dismissed the novelty of the situation and moved his Pawn to Q3. He all but forgot the absence of a tangible opponent as the White Knight dropped back to its KB3. He paused to take a sip of beer, but no sooner had he placed the can upon the tabletop than it rose again, passed across the board and was upended. A gurgling noise followed. Then the

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can fell to the floor, bouncing, ringing with an empty sound.

"I'm sorry," he said, rising and returning to his pack. "I'd have offered you one if I'd thought you were something that might like it."

He opened two more cans, returned with them, placed one near the far edge of the table, one at his own right hand.

"Thank you," came a soft, precise voice from a point beyond it.

The can was raised, tilted slightly, returned to the tabletop.

"My name is Martin," the man said.

"Call me Tlingel," said the other. "I had thought that perhaps your kind was extinct. I am pleased that you at least have survived to afford me this game."

"Huh?" Martin said. "We were all still around the last time that I looked—a couple of days ago."

"No matter. I can take care of that later," Tlingel replied. "I was misled by the appearance of this place."

"Oh. It's a ghost town. I backpack a lot."

"Not important. I am near the proper point in your career as a species. I can feel that much."

"I am afraid that I do not follow you."

"I am not at all certain that you would wish to. I assume that you intend to capture that pawn?"

"Perhaps. Yes, I do wish to. What are you talking about?"

The beer can rose. The invisible entity took another drink.

"Well," said Tlingel, "to put it simply, your—successors—grow anxious. Your place in the scheme of things being such an important one, I had sufficient power to come and check things out."

" 'Successors'? I do not understand."

"Have you seen any griffins recently?"

Martin chuckled.

"I've heard the stories," he said, "seen the photos of the one supposedly shot in the Rockies. A hoax, of course."

"Of course it must seem so. That is the way with mythical beasts."

"You're trying to say that it was real?"

"Certainly. Your world is in bad shape. When the last grizzly bear died recently, the way was opened for the griffins—just as the death of the last aepyornis brought in the yeti, the dodo the Loch Ness creature, the passenger pigeon the sasquatch, the blue whale the kraken, the American eagle the cockatrice—"

"You can't prove it by me."

"Have another drink."

Martin began to reach for the can, halted his hand and stared.

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A creature approximately two inches in length, with a human face, a lion-like body and feathered wings was crouched next to the beer can.

"A mini-sphinx," the voice continued. "They came when you killed off the last smallpox virus."

"Are you trying to say that whenever a natural species dies out a mythical one takes its place?" he asked.

"In a word—yes. Now. It was not always so, but you have destroyed the mechanisms of evolution. The balance is now redressed by those others of us from the morning land—we, who have never truly been endangered. We return, in our time."

"And you—whatever you are, Tlingel—you say that humanity is now endangered?"

"Very much so. But there is nothing that you can do about it, is there? Let us get on with the game."

The sphinx flew off. Martin took a sip of beer and captured the Pawn.

"Who," he asked then, "are to be our successors?"

"Modesty almost forbids," Tlingel replied. "In the case of a species as prominent as your own, it naturally has to be the loveliest, most intelligent, most important of us all."

"And what are you? Is there any way that I can have a look?"

"Well—yes. If I exert myself a trifle."

The beer can rose, was drained, fell to the floor. There followed a series of rapid rattling sounds retreating from the table. The air began to flicker over a large area opposite Martin, darkening within the growing flamework. The outline continued to brighten, its interior growing jet black. The form moved, prancing about the saloon, multitudes of tiny, cloven hoof-prints scoring and cracking the floorboards. With a final, near-blinding flash it came into full view and Martin gasped to behold it.

A black unicorn with mocking, yellow eyes sported before him, rising for a moment onto its hind legs to strike a heraldic pose. The fires flared about it a second longer, then vanished.

Martin had drawn back, raising one hand defensively.

"Regard me!" Tlingel announced. "Ancient symbol of wisdom, valor, and beauty, I stand before you!"

"I thought your typical unicorn was white," Martin finally said.

"I am archetypical," Tlingel responded, dropping to all fours, "and possessed of virtues beyond the ordinary."

"Such as?"

"Let us continue our game."

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"What about the fate of the human race? You said—"

". . . And save the small talk for later."

"I hardly consider the destruction of humanity to be small talk."

"And if you've any more beer . . ."

"All right," Martin said, retreating to his pack as the creature advanced, its eyes like a pair of pale suns. "There's some lager."

Something had gone out of the game. As Martin sat before the ebon horn on Tlingel's bowed head, like an insect about to be pinned, he realized that his playing was off. He had felt the pressure the moment he had seen the beast—and there was all that talk about an imminent doomsday. Any run-of-the-mill pessimist could say it without troubling him, but coming from a source as peculiar as this . . .

His earlier elation had fled. He was no longer in top form. And Tlingel was good. Very good. Martin found himself wondering whether he could manage a stalemate.

After a time, he saw that he could not and resigned.

The unicorn looked at him and smiled.

"You don't really play badly—for a human," it said.

"I've done a lot better."

"It is no shame to lose to me, mortal. Even among mythical creatures there are very few who can give a unicorn a good game."

"I am pleased that you were not wholly bored," Martin said. "Now will you tell me what you were talking about concerning the destruction of my species?"

"Oh, that," Tlingel replied. "In the morning land where those such as I dwell, I felt the possibility of your passing come like a gentle wind to my nostrils, with the promise of clearing the way for us—"

"How is it supposed to happen?"

Tlingel shrugged, horn writing on the air with a toss of the head.

"I really couldn't say. Premonitions are seldom specific. In fact, that is what I came to discover. I should have been about it already, but you diverted me with beer and good sport."

"Could you be wrong about this?"

"I doubt it. That is the other reason I am here."

"Please explain."

"Are there any beers left?"

"Two, I think."

"Please."

Martin rose and fetched them.

"Damn! The tab broke off this one," he said.

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"Place it upon the table and hold it firmly."

"All right."

Tlingel's horn dipped forward quickly, piercing the can's top.

". . . Useful for all sorts of things," Tlingel observed, withdrawing it.

"The other reason you're here . . ." Martin prompted.

"It is just that I am special. I can do things that the others cannot."

"Such as?"

"Find your weak spot and influence events to exploit it, to—hasten matters. To turn the possibility into a probability, and then—"

"*You* are going to destroy us? Personally?"

"That is the wrong way to look at it. It is more like a game of chess. It is as much a matter of exploiting your opponent's weaknesses as of exercising your own strengths. If you had not already laid the groundwork I would be powerless. I can only influence that which already exists."

"So what will it be? World War III? An ecological disaster? A mutated disease?"

"I do not really know yet, so I wish you wouldn't ask me in that fashion. I repeat that at the moment I am only observing. I am only an agent—"

"It doesn't sound that way to me."

Tlingel was silent. Martin began gathering up the chessmen.

"Aren't you going to set up the board again?"

"To amuse my destroyer a little more? No thanks."

"That's hardly the way to look at it—"

"Besides, those are the last beers."

"Oh." Tlingel stared wistfully at the vanishing pieces, then remarked, "I would be willing to play you again without additional refreshment . . ."

"No thanks."

"You are angry."

"Wouldn't you be, if our situations were reversed?"

"You are anthropomorphizing."

"Well?"

"Oh, I suppose I would."

"You could give us a break, you know—at least, let us make our own mistakes."

"You've hardly done that yourself, though, with all the creatures my fellows have succeeded."

Martin reddened.

"Okay. You just scored one. But I don't have to like it."

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"You are a good player. I know that. . . ."

"Tlingel, if I were capable of playing at my best again, I think I could beat you."

The unicorn snorted two tiny wisps of smoke.

"Not *that* good," Tlingel said.

"I guess you'll never know."

"Do I detect a proposal?"

"Possibly. What's another game worth to you?"

Tlingel made a chuckling noise.

"Let me guess: You are going to say that if you beat me you want my promise not to lay my will upon the weakest link in mankind's existence and shatter it."

"Of course."

"And what do I get for winning?"

"The pleasure of the game. That's what you want, isn't it?"

"The terms sound a little lopsided."

"Not if you are going to win anyway. You keep insisting that you will."

"All right. Set up the board."

"There is something else that you have to know about me first."

"Yes?"

"I don't play well under pressure, and this game is going to be a terrific strain. You want my best game, don't you?"

"Yes, but I'm afraid I've no way of adjusting your own reactions to the play."

"I believe I could do that myself if I had more than the usual amount of time between moves."

"Agreed."

"I mean a lot of time."

"Just what do you have in mind?"

"I'll need time to get my mind off it, to relax, to come back to the positions as if they were only problems . . ."

"You mean to go away from here between moves?"

"Yes."

"All right. How long?"

"I don't know. A few weeks, maybe."

"Take a month. Consult your experts, put your computers onto it. It may make for a slightly more interesting game."

"I really didn't have that in mind."

"Then it's time that you're trying to buy."

"I can't deny that. On the other hand, I will need it."

"In that case, I have some terms. I'd like this place cleaned up,

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fixed up, more lively. It's a mess. I also want beer on tap."

"Okay. I'll see to that."

"Then I agree. Let's see who goes first."

Martin switched a black and a white pawn from hand to hand beneath the table. He raised his fists then and extended them. Tlingel leaned forward and tapped. The black horn's tip touched Martin's left hand.

"Well, it matches my sleek and glossy hide," the unicorn announced.

Martin smiled, setting up the white for himself, the black pieces for his opponent. As soon as he had finished, he pushed his Pawn to K4.

Tlingel's delicate, ebon hoof moved to advance the Black King's Pawn to K4.

"I take it that you want a month now, to consider your next move?"

Martin did not reply but moved his Knight to KB3. Tlingel immediately moved a Knight to QB3.

Martin took a swallow of beer and then moved his Bishop to N5. The unicorn moved the other Knight to B3. Martin immediately castled and Tlingel moved the Knight to take his Pawn.

"I think we'll make it," Martin said suddenly, "if you'll just let us alone. We do learn from our mistakes, in time."

"Mythical beings do not exactly exist in time. Your world is a special case."

"Don't you people ever make mistakes?"

"Whenever we do they're sort of poetic."

Martin snarled and advanced his Pawn to Q4. Tlingel immediately countered by moving the Knight to Q3.

"I've got to stop," Martin said, standing. "I'm getting mad, and it will affect my game."

"You will be going, then?"

"Yes."

He moved to fetch his pack.

"I will see you here in one month's time?"

"Yes."

"Very well."

The unicorn rose and stamped upon the floor and lights began to play across its dark coat. Suddenly, they blazed and shot outward in all directions like a silent explosion. A wave of blackness followed.

Martin found himself leaning against the wall, shaking. When he lowered his hand from his eyes, he saw that he was alone, save for the knights, the bishops, the kings, the queens, their castles and

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both the kings' men.

He went away.

Three days later Martin returned in a small truck, with a generator, lumber, windows, power tools, paint, stain, cleaning compounds, wax. He dusted and vacuumed and replaced rotted wood. He installed the windows. He polished the old brass until it shone. He stained and rubbed. He waxed the floors and buffed them. He plugged holes and washed glass. He hauled all the trash away.

It took him the better part of a week to turn the old place from a wreck back into a saloon in appearance. Then he drove off, returned all of the equipment he had rented and bought a ticket for the Northwest.

The big, damp forest was another of his favorite places for hiking, for thinking. And he was seeking a complete change of scene, a total revision of outlook. Not that his next move did not seem obvious, standard even. Yet, something nagged. . . .

He knew that it was more than just the game. Before that he had been ready to get away again, to walk drowsing among shadows, breathing clean air.

Resting, his back against the bulging root of a giant tree, he withdrew a small chess set from his pack, set it up on a rock he'd moved into position nearby. A fine, mist-like rain was settling, but the tree sheltered him, so far. He reconstructed the opening through Tlingel's withdrawal of the Knight to Q3. The simplest thing would be to take the Knight with the Bishop. But he did not move to do it.

He watched the board for a time, felt his eyelids drooping, closed them and drowsed. It may only have been for a few minutes. He was never certain afterwards.

Something aroused him. He did not know what. He blinked several times and closed his eyes again. Then he reopened them hurriedly.

In his nodded position, eyes directed downward, his gaze was fixed upon an enormous pair of hairy, unshod feet—the largest pair of feet that he had ever beheld. They stood unmoving before him, pointed toward his right.

Slowly—very slowly—he raised his eyes. Not very far, as it turned out. The creature was only about four and a half feet in height. As it was looking at the chessboard rather than at him, he took the opportunity to study it.

It was unclothed but very hairy, with a dark brown pelt, obviously masculine, possessed of low brow ridges, deep-set eyes that matched

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its hair, heavy shoulders, five-fingered hands that sported opposing thumbs.

It turned suddenly and regarded him, flashing a large number of shining teeth.

"White's pawn should take the pawn," it said in a soft, nasal voice.

"Huh? Come on," Martin said. "Bishop takes knight."

"You want to give me black and play it that way? I'll walk all over you."

Martin glanced again at its feet.

". . . Or give me white and let me take that pawn. I'll still do it."

"Take white," Martin said, straightening. "Let's see if you know what you're talking about." He reached for his pack. "Have a beer?"

"What's a beer?"

"A recreational aid. Wait a minute."

Before they had finished the six-pack, the sasquatch—whose name, he had learned, was Grend—had finished Martin. Grend had quickly entered a ferocious midgame, backed him into a position of dwindling security and pushed him to the point where he had seen the end and resigned.

"That was one hell of a game," Martin declared, leaning back and considering the ape-like countenance before him.

"Yes, we Bigfeet are pretty good, if I do say it. It's our one big recreation, and we're so damned primitive we don't have much in the way of boards and chessmen. Most of the time, we just play it in our heads. There're not many can come close to us."

"How about unicorns?" Martin asked.

Grend nodded slowly.

"They're about the only ones can really give us a good game. A little dainty, but they're subtle. Awfully sure of themselves, though, I must say. Even when they're wrong. Haven't seen any since we left the morning land, of course. Too bad. Got any more of that beer left?"

"I'm afraid not. But listen, I'll be back this way in a month. I'll bring some more if you'll meet me here and play again."

"Martin, you've got a deal. Sorry. Didn't mean to step on your toes."

He cleaned the saloon again and brought in a keg of beer which he installed under the bar and packed with ice. He moved in some bar stools, chairs and tables which he had obtained at a Goodwill store. He hung red curtains. By then it was evening. He set up the board, ate a light meal, unrolled his sleeping bag behind the bar

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and camped there that night.

The following day passed quickly. Since Tlingel might show up at any time, he did not leave the vicinity, but took his meals there and sat about working chess problems. When it began to grow dark, he lit a number of oil lamps and candles.

He looked at his watch with increasing frequency. He began to pace. He couldn't have made a mistake. This was the proper day. He—

He heard a chuckle.

Turning about, he saw a black unicorn head floating in the air above the chessboard. As he watched, the rest of Tlingel's body materialized.

"Good evening, Martin." Tlingel turned away from the board. "The place looks a little better. Could use some music . . ."

Martin stepped behind the bar and switched on the transistor radio he had brought along. The sounds of a string quartet filled the air. Tlingel winced.

"Hardly in keeping with the atmosphere of the place."

He changed stations, located a Country & Western show.

"I think not," Tlingel said. "It loses something in transmission."

He turned it off.

"Have we a good supply of beverage?"

Martin drew a gallon stein of beer—the largest mug that he could locate, from a novelty store—and set it upon the bar. He filled a much smaller one for himself. He was determined to get the beast drunk if it were at all possible.

"Ah! Much better than those little cans," said Tlingel, whose muzzle dipped for but a moment. "Very good."

The mug was empty. Martin refilled it.

"Will you move it to the table for me?"

"Certainly."

"Have an interesting month?"

"I suppose I did."

"You've decided upon your next move?"

"Yes."

"Then let's get on with it."

Martin seated himself and captured the Pawn.

"Hm. Interesting."

Tlingel stared at the board for a long while, then raised a cloven hoof which parted in reaching for the piece.

"I'll just take that bishop with this little knight. Now I suppose you'll be wanting another month to decide what to do next."

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Tlingel leaned to the side and drained the mug.

"Let me consider it," Martin said, "while I get you a refill."

Martin sat and stared at the board through three more refills. Actually, he was not planning. He was waiting. His response to Grend had been Knight takes Bishop, and he had Grend's next move ready.

"Well?" Tlingel finally said. "What do you think?"

Martin took a small sip of beer.

"Almost ready," he said. "You hold your beer awfully well."

Tlingel laughed.

"A unicorn's horn is a detoxicant. Its possession is a universal remedy. I wait until I reach the warm-glow stage, then I use my horn to burn off any excess and keep me right there."

"Oh," said Martin. "Neat trick, that."

". . . If you've had too much, just touch my horn for a moment and I'll put you back in business."

"No, thanks. That's all right. I'll just push this little pawn in front of the queen's rook two steps ahead."

"Really . . ." said Tlingel. "That's interesting. You know, what this place really needs is a piano—rinkytink, funky . . . Think you could manage it?"

"I don't play."

"Too bad."

"I suppose I could hire a piano player."

"No. I do not care to be seen by other humans."

"If he's really good, I suppose he could play blindfolded."

"Never mind."

"I'm sorry."

"You are also ingenious. I am certain that you will figure something out by next time."

Martin nodded.

"Also, didn't these old places used to have sawdust all over the floors?"

"I believe so."

"That would be nice."

"Check."

Tlingel searched the board frantically for a moment.

"Yes. I meant 'yes'. I said 'check'. It means 'yes' sometimes, too."

"Oh. Rather. Well, while we're here . . ."

Tlingel advanced the Pawn to Q3.

Martin stared. That was not what Grend had done. For a moment, he considered continuing on his own from here. He had tried to

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think of Grend as a coach up until this point. He had forced away the notion of crudely and crassly pitting one of them against the other. Until P–Q3. Then he recalled the game he had lost to the sasquatch.

"I'll draw the line here," he said, "and take my month."

"All right. Let's have another drink before we say good night. Okay?"

"Sure. Why not?"

They sat for a time and Tlingel told him of the morning land, of primeval forests and rolling plains, of high craggy mountains and purple seas, of magic and mythic beasts.

Martin shook his head.

"I can't quite see why you're so anxious to come here," he said, "with a place like that to call home."

Tlingel sighed.

"I suppose you'd call it keeping up with the griffins. It's the thing to do these days. Well. Till next month . . ."

Tlingel rose and turned away.

"I've got complete control now. Watch!"

The unicorn form faded, jerked out of shape, grew white, faded again, was gone, like an afterimage.

Martin moved to the bar and drew himself another mug. It was a shame to waste what was left. In the morning, he wished the unicorn were there again. Or at least the horn.

It was a gray day in the forest and he held an umbrella over the chessboard upon the rock. The droplets fell from the leaves and made dull, plopping noises as they struck the fabric. The board was set up again through Tlingel's P–Q3. Martin wondered whether Grend had remembered, had kept proper track of the days . . .

"Hello," came the nasal voice from somewhere behind him and to the left.

He turned to see Grend moving about the tree, stepping over the massive roots with massive feet.

"You remembered," Grend said. "How good! I trust you also remembered the beer?"

"I've lugged up a whole case. We can set up the bar right here."

"What's a bar?"

"Well, it's a place where people go to drink—in out of the rain—a bit dark, for atmosphere—and they sit up on stools before a big counter, or else at little tables—and they talk to each other—and sometimes there's music—and they drink."

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"We're going to have all that here?"

"No. Just the dark and the drinks. Unless you count the rain as music. I was speaking figuratively."

"Oh. It does sound like a very good place to visit, though."

"Yes. If you will hold this umbrella over the board, I'll set up the best equivalent we can have here."

"All right. Say, this looks like a version of that game we played last time."

"It is. I got to wondering what would happen if it had gone this way rather than the way that it went."

"Hmm. Let me see . . ."

Martin removed four six-packs from his pack and opened the first.

"Here you go."

"Thanks."

Grend accepted the beer, squatted, passed the umbrella back to Martin.

"I'm still white?"

"Yeah."

"Pawn to King six."

"Really?"

"Yep."

"About the best thing for me to do would be to take this pawn with this one."

"I'd say. Then I'll just knock off your knight with this one."

"I guess I'll just pull this knight back to K2."

". . . And I'll take this one over to B3. May I have another beer?"

An hour and a quarter later, Martin resigned. The rain had let up and he had folded the umbrella.

"Another game?" Grend asked.

The afternoon wore on. The pressure was off. This one was just for fun. Martin tried wild combinations, seeing ahead with great clarity, as he had that one day. . . .

"Stalemate," Grend announced much later. "That was a good one, though. You picked up considerably."

"I was more relaxed. Want another?"

"Maybe in a little while. Tell me more about bars now."

So he did. Finally, "How is all that beer affecting you?" he asked.

"I'm a bit dizzy. But that's all right. I'll still cream you the third game."

And he did.

"Not bad for a human, though. Not bad at all. You coming back next month?"

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"Yes."

"Good. You'll bring more beer?"

"So long as my money holds out."

"Oh. Bring some plaster of Paris then. I'll make you some nice footprints and you can take casts of them. I understand they're going for quite a bit."

"I'll remember that."

Martin lurched to his feet and collected the chess set.

"Till then."

"Ciao."

Martin dusted and polished again, moved in the player piano and scattered sawdust upon the floor. He installed a fresh keg. He hung some reproductions of period posters and some atrocious old paintings he had located in a junk shop. He placed cuspidors in strategic locations. When he was finished, he seated himself at the bar and opened a bottle of mineral water. He listened to the New Mexico wind moaning as it passed, to grains of sand striking against the windowpanes. He wondered whether the whole world would have that dry, mournful sound to it if Tlingel found a means for doing away with humanity, or—disturbing thought—whether the successors to his own kind might turn things into something resembling the mythical morning land.

This troubled him for a time. Then he went and set up the board through Black's P–Q3. When he turned back to clear the bar he saw a line of cloven hoofprints advancing across the sawdust.

"Good evening, Tlingel," he said. "What is your pleasure?"

Suddenly, the unicorn was there, without preliminary pyrotechnics. It moved to the bar and placed one hoof upon the brass rail.

"The usual."

As Martin drew the beer, Tlingel looked about.

"The place has improved, a bit."

"Glad you think so. Would you care for some music?"

"Yes."

Martin fumbled at the back of the piano, locating the switch for the small, battery-operated computer which controlled the pumping mechanism and substituted its own memory for rolls. The keyboard immediately came to life.

"Very good," Tlingel stated. "Have you found your move?"

"I have."

"Then let us be about it."

He refilled the unicorn's mug and moved it to the table.

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"Pawn to King six," he said, executing it.

"What?"

"Just that."

"Give me a minute. I want to study this."

"Take your time."

"I'll take the pawn," Tlingel said, after a long pause and another mug.

"Then I'll take this knight."

Later, "Knight to K2," Tlingel said.

"Knight to B3."

An extremely long pause ensued before Tlingel moved the Knight to N3.

The hell with asking Grend, Martin suddenly decided. He'd been through this part any number of times already. He moved his Knight to N5.

"Change the tune on that thing!" Tlingel snapped.

Martin rose and obliged.

"I don't like that one either. Find a better one or shut it off!"

After three more tries, Martin shut it off.

"And get me another beer!"

He refilled their mugs.

"All right."

Tlingel moved the Bishop to K2.

Keeping the unicorn from castling had to be the most important thing at the moment. So Martin moved his Queen to R5. Tlingel made a tiny, strangling noise, and when Martin looked up smoke was curling from the unicorn's nostrils.

"More beer?"

"If you please."

As he returned with it, he saw Tlingel move the Bishop to capture the Knight. There seemed no choice for him at that moment, but he studied the position for a long while anyhow.

Finally, "Bishop takes bishop," he said.

"Of course."

"How's the warm glow?"

Tlingel chuckled.

"You'll see."

The wind rose again, began to howl. The building creaked.

"Okay," Tlingel finally said, and moved the Queen to Q2.

Martin stared. What was he doing? So far, it had gone all right, but— He listened again to the wind and thought of the risk he was taking.

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"That's all, folks," he said, leaning back in his chair. "Continued next month."

Tlingel sighed.

"Don't run off. Fetch me another. Let me tell you of my wanderings in your world this past month."

"Looking for weak links?"

"You're lousy with them. How do you stand it?"

"They're harder to strengthen than you might think. Any advice?"

"Get the beer."

They talked until the sky paled in the east, and Martin found himself taking surreptitious notes. His admiration for the unicorn's analytical abilities increased as the evening advanced.

When they finally rose, Tlingel staggered.

"You all right?"

"Forgot to detox, that's all. Just a second. Then I'll be fading."

"Wait!"

"Whazzat?"

"I could use one, too."

"Oh. Grab hold, then."

Tlingel's head descended and Martin took the tip of the horn between his fingertips. Immediately, a delicious, warm sensation flowed through him. He closed his eyes to enjoy it. His head cleared. An ache which had been growing within his frontal sinus vanished. The tiredness went out of his muscles. He opened his eyes again.

"Thank—"

Tlingel had vanished. He held but a handful of air.

"—you."

"Rael here is my friend," Grend stated. "He's a griffin."

"I'd noticed."

Martin nodded at the beaked, golden-winged creature.

"Pleased to meet you, Rael."

"The same," cried the other in a high-pitched voice. "Have you got the beer?"

"Why—uh—yes."

"I've been telling him about beer," Grend explained, half-apologetically. "He can have some of mine. He won't kibitz or anything like that."

"Sure. All right. Any friend of yours—"

"The beer!" Rael cried. "Bars!"

"He's not real bright," Grend whispered. "But he's good company. I'd appreciate your humoring him."

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Martin opened the first six-pack and passed the griffin and the sasquatch a beer apiece. Rael immediately punctured the can with his beak, chugged it, belched and held out his claw.

"Beer!" he shrieked. "More beer!"

Martin handed him another.

"Say, you're still into that first game, aren't you?" Grend observed, studying the board. "Now, *that* is an interesting position."

Grend drank and studied the board.

"Good thing it's not raining," Martin commented.

"Oh, it will. Just wait a while."

"More beer!" Rael screamed.

Martin passed him another without looking.

"I'll move my pawn to N6," Grend said.

"You're kidding."

"Nope. Then you'll take that pawn with your bishop's pawn. Right?"

"Yes . . ."

Martin reached out and did it.

"Okay. Now I'll just swing this knight to Q5."

Martin took it with the Pawn.

Grend moved his Rook to K1.

"Check," he announced.

"Yes. That *is* the way to go," Martin observed.

Grend chuckled.

"I'm going to win this game another time," he said.

"I wouldn't put it past you."

"More beer?" Rael said softly.

"Sure."

As Martin passed him another, he noticed that the griffin was now leaning against the tree trunk.

After several minutes, Martin pushed his King to B1.

"Yeah, that's what I thought you'd do," Grend said. "You know something?"

"What?"

"You play a lot like a unicorn."

"Hm."

Grend moved his Rook to R3.

Later, as the rain descended gently about them and Grend beat him again, Martin realized that a prolonged period of silence had prevailed. He glanced over at the griffin. Rael had tucked his head beneath his left wing, balanced upon one leg, leaned heavily against the tree and gone to sleep.

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"I told you he wouldn't be much trouble," Grend remarked.

Two games later, the beer was gone, the shadows were lengthening, and Rael was stirring.

"See you next month?"

"Yeah."

"You bring any plaster of Paris?"

"Yes, I did."

"Come on, then. I know a good place pretty far from here. We don't want people beating about *these* bushes. Let's go make you some money."

"To buy beer?" Rael said, looking out from under his wing.

"Next month," Grend said.

"You ride?"

"I don't think you could carry both of us," said Grend, "and I'm not sure I'd want to right now if you could."

"Bye-bye then," Rael shrieked, and he leaped into the air, crashing into branches and tree trunks, finally breaking through the overhead cover and vanishing.

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"There goes a really decent guy," said Grend. "He sees everything and he never forgets. Knows how everything works—in the woods, in the air—even in the water. Generous, too, whenever he has anything."

"Hm," Martin observed.

"Let's make tracks," Grend said.

"Pawn to N6? Really?" Tlingel said. "All right. The bishop's pawn will just knock off the pawn."

Tlingel's eyes narrowed as Martin moved the Knight to Q5.

"At least this is an interesting game," the unicorn remarked. "Pawn takes knight."

Martin moved the rook.

"Check."

"Yes, it is. This next one is going to be a three-flagon move. Kindly bring me the first."

Martin thought back as he watched Tlingel drink and ponder. He almost felt guilty for hitting it with a powerhouse like the sasquatch behind its back. He was convinced now that the unicorn was going to lose. In every variation of this game that he'd played with Black against Grend, he'd been beaten. Tlingel was very good, but the sasquatch was a wizard with not much else to do but mental chess. It was unfair. But it was not a matter of personal honor, he kept telling himself. He was playing to protect his species against a supernatural force which might well be able to precipitate World War III by some arcane mind-manipulation or magically induced computer foulup. He didn't dare give the creature a break.

"Flagon number two, please."

He brought it another. He studied it as it studied the board. It was beautiful, he realized for the first time. It was the loveliest living thing he had ever seen. Now that the pressure was on the verge of evaporating and he could regard it without the overlay of fear which had always been there in the past, he could pause to admire it. If something *had* to succeed the human race, he could think of worse choices. . . .

"Number three now."

"Coming up."

Tlingel drained it and moved the King to B1.

Martin leaned forward immediately and pushed the Rook to R3.

Tlingel looked up, stared at him.

"Not bad."

Martin wanted to squirm. He was struck by the nobility of the

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creature. He wanted so badly to play and beat the unicorn on his own, fairly. Not this way.

Tlingel looked back at the board, then almost carelessly moved the Knight to K4.

"Go ahead. Or will it take you another month?"

Martin growled softly, advanced the Rook, and captured the Knight.

"Of course."

Tlingel captured the Rook with the Pawn. This was not the way that the last variation with Grend had run. Still . . .

He moved his Rook to KB3. As he did, the wind seemed to commence a peculiar shrieking, above, amid the ruined buildings.

"Check," he announced.

The hell with it! he decided. I'm good enough to manage my own endgame. Let's play this out.

He watched and waited and finally saw Tlingel move the King to N1.

He moved his Bishop to R6. Tlingel moved the Queen to K2. The shrieking came again, sounding nearer now. Martin took the Pawn with the Bishop.

The unicorn's head came up and it seemed to listen for a moment. Then Tlingel lowered it and captured the Bishop with the King.

Martin moved his Rook to KN3.

"Check."

Tlingel returned the King to B1.

Martin moved the Rook to KB3.

"Check."

Tlingel pushed the King to N2.

Martin moved the Rook back to KN3.

"Check."

Tlingel returned the King to B1, looked up and stared at him, showing teeth.

"Looks as if we've got a drawn game," the unicorn stated. "Care for another one?"

"Yes, but not for the fate of humanity."

"Forget it. I'd given up on that a long time ago. I decided that I wouldn't care to live here after all. I'm a little more discriminating than that.

"Except for this bar." Tlingel turned away as another shriek sounded just beyond the door, followed by strange voices. "What is that?"

"I don't know," Martin answered, rising.

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The doors opened and a golden griffin entered.

"Martin!" it cried. "Beer! Beer!"

"Uh—Tlingel, this is Rael, and, and—"

Three more griffins followed him in. Then came Grend, and three others of his own kind.

"—and that one's Grend," Martin said lamely. "I don't know the others."

They all halted when they beheld the unicorn.

"Tlingel," one of the sasquatches said. "I thought you were still in the morning land."

"I still am, in a way. Martin, how is it that you are acquainted with my former countrymen?"

"Well—uh—Grend here is my chess coach."

"Aha! I begin to understand."

"I am not sure that you really do. But let me get everyone a drink first."

Martin turned on the piano and set everyone up.

"How did you find this place?" he asked Grend as he was doing it. "And how did you get here?"

"Well . . ." Grend looked embarrassed. "Rael followed you back."

"Followed a jet?"

"Griffins are supernaturally fast."

"Oh."

"Anyway, he told his relatives and some of my folks about it. When we saw that the griffins were determined to visit you, we decided that we had better come along to keep them out of trouble. They brought us."

"I—see. Interesting . . ."

"No wonder you played like a unicorn, that one game with all the variations."

"Uh—yes."

Martin turned away, moved to the end of the bar.

"Welcome, all of you," he said. "I have a small announcement. Tlingel, a while back you had a number of observations concerning possible ecological and urban disasters and lesser dangers. Also, some ideas as to possible safeguards against some of them."

"I recall," said the unicorn.

"I passed them along to a friend of mine in Washington who used to be a member of my old chess club. I told him that the work was not entirely my own."

"I should hope so."

"He has since suggested that I turn whatever group was involved

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into a think tank. He will then see about paying something for its efforts."

"I didn't come here to save the world," Tlingel said.

"No, but you've been very helpful. And Grend tells me that the griffins, even if their vocabulary is a bit limited, know almost all that there is to know about ecology."

"That is probably true."

"Since they have inherited a part of the Earth, it would be to their benefit as well to help preserve the place. Inasmuch as this many of us are already here, I can save myself some travel and suggest right now that we find a meeting place—say here, once a month—and that you let me have your unique viewpoints. You must know more about how species become extinct than anyone else in the business."

"Of course," said Grend, waving his mug, "but we really should ask the yeti, also. I'll do it, if you'd like. Is that stuff coming out of the big box music?"

"Yes."

"I like it. If we do this think-tank thing, you'll make enough to keep this place going?"

"I'll buy the whole town."

Grend conversed in quick gutturals with the griffins, who shrieked back at him.

"You've got a think tank," he said, "and they want more beer."

Martin turned toward Tlingel.

"They were your observations. What do you think?"

"It may be amusing," said the unicorn, "to stop by occasionally." Then, "So much for saving the world. Did you say you wanted another game?"

"I've nothing to lose."

Grend took over the tending of the bar while Tlingel and Martin returned to the table.

He beat the unicorn in thirty-one moves and touched the extended horn.

The piano keys went up and down. Tiny sphinxes buzzed about the bar, drinking the spillage.

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THE POLYBUGS OF TITAN
by Martin Gardner

While your editor was copy-editing this story—at the Jet Propulsion Laboratory press conferences on the Voyager I encounter with Saturn and its moons—the nature of Titan seemed to be changing hourly, but we managed to keep this story atop the changes.

After the spaceship *Bagel* returned from its last mission, the crew enjoyed a month's vacation on Earth before the ship embarked again. Its new mission was to land on Titan, the largest of Saturn's moons, to determine what sort of life, if any, flourished beneath the satellite's thick cover of yellow clouds.

The trip to Titan was uneventful. The *Bagel* made a cautious landing on the side of the moon facing Saturn. Larc Snaag, the ship's captain, and Stanley G. Winetree, an exobiologist, were the first to venture outside the ship.

"What a cold, gloomy world!" exclaimed Snaag as they tramped slowly across a gooey surface between pools of liquid nitrogen. Looking up through the dense nitrogen atmosphere, they could barely make out the huge outline of Saturn and its rings even though the planet was almost wholly illuminated by the sun.

"Haloo! What's this?" shouted Winetree, lowering his head so that a bright beam of light from the top of his space helmet was directed downward. Myriads of tiny life-forms, all gray in color, were scurrying about over the black goo like a swarm of ants.

With the gloved hand of his spacesuit, Winetree scooped about a thousand of the little creatures into the large specimen box he was carrying. Back in the *Bagel's* biochem lab, close inspection of the life-forms disclosed some astonishing facts. Each body was a hard crystal, about half a centimeter in diameter, in the shape of a perfectly formed convex polyhedron! The appendages, which served as legs, varied in number from six to twenty. There were no indications on the body of eyes or a mouth.

A convex polyhedron is a solid with flat polygon faces. Convex means that if any two points in or on the solid are joined by a straight line, the line is wholly in or on the solid. All of Titan's "polybugs," as Winetree named them, were "simple." This means

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there were no holes going through them.

Every conceivable variety of polyhedron with no more than 30 edges seemed to be represented. Careful examination of the polybugs in the collected sample disclosed that the number of edges on a polybug could be any number from 6 through 30 with just one exception—the number 7.

"I can't understand it," said Winetree to Ronald Couth, the ship's top mathematician. "I know the simplest polyhedron is a tetrahedron. It has 4 corners, 4 faces, and 6 edges. Lots of our polybugs are tetrahedrons. And lots of others have 8 edges. Why not 7?"

Couth broke into a laugh. "You've forgotten your elementary solid geometry, Stan," he said. Then he went on to explain why no polybug had 7 edges. What was his explanation? The answer is on page 78.

UNSEEN CONNECTIONS

We're quarks—queer things that can only be
seen through their decay;
So dim our only light comes from other
quarks bumped on our way.
Unaware and alone we ramble, we're
separately complete,
Deaf to the nearby thunder from vast millions
of electron-feet.
We ride the whirlwind in our torus and
think ourselves unique,
Ignorant of our neighbors' tracings, lone
futures seem too bleak.
Others' charm and strangeness, truth and beauty
brightly glows unseen;
Our gluon links to other glitches are just
figments of machines.

—Peggy J. Noonan

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THE SF CONVENTIONAL CALENDAR
by Erwin S. Strauss

The Spring con(vention) season is nearing its peak now. Get out for a social weekend with your favorite SF authors, artists, editors and fellow fans soon. For a longer, later list, an explanation of cons, and a sample of SF folksongs, send me an addressed, stamped envelope (SASE) at 9850 Fairfax Sq. #232, Fairfax VA 22031. The hotline is (703) 273-6111. If a machine answers, leave your area code and number and I'll call back at my expense. When writing cons, enclose an SASE. When calling cons, give your name and reason for calling. Look for me at cons as Filthy Pierre.

SwannCon. For info, write: **Conf. on the Fantastic, Coll. of Hum., Fla. Atl. Univ., Boca Raton FL 33431.** Or phone: **(305) 395-5100, x2538** (10 am to 10 pm only, not collect). Con will be held in: Boca Raton FL (if location omitted, same as in address) on: 18-21 Mar., 1981. Guests will include: John Barth, Brian W. Aldiss. Academic conference.

LunaCon, (201) 288-6100. Hasbrouck Heights NJ (near New York City), 20-22 Mar. James White, Jack Gaughan. At the Sheraton hotel (the phone number above is for the hotel).

NorWesCon, (206) 244-5929. Seattle WA, 27-29 Mar. Masquerade. Seattle's 4th annual con.

FoolCon, c/o JCCC, Overland Park KS 66210. 3-5 Apr. Katherine Kurtz, Michael Whelan, Tim Kirk, C. J. Cherryh, Robert Asprin, Lee and Pat Killough, Lynn Abbey, Patricia Cadigan.

SatyriCon, Box 323, Knoxville TN 37901. 3-5 Apr. Andrew J. Offutt, Anne (Pern) McCaffrey.

MunchCon, M. U. SF Society, MSC, Marshall Univ., Huntington WV 25701. 10-12 Apr.

YorCon, c/o Burns, 48 Lou Ave., Kings Park NY 11754. Leeds, England, 17-20 Apr. UK phone: Leeds (0532) 721478. 32nd annual British EasterCon. Watson, Langford, Thomas M. Disch.

BaltiCon, c/o BSFS, Box 686, Baltimore MD 21203. Hunt Valley MD, 17-19 Apr. John Varley, Darrell Sweet, Robert Sheckley, Nancy Springer, Somtow Sucharitkul. Always a sellout.

CineCon, c/o Binns, 305 Swanston, Melbourne 3000 Vic., Australia. 663-1777. 17-20 Apr.

Kubla Khan, 647 Devon Dr., Nashville TN 37220. (615) 832-8402. 8-10 May. C. L. Grant, A. J. Offutt, Jack Gaughan, F. J. Ackerman, Stephen King. At a new hotel this ninth year.

ElectraCon, Box 1052, Kearney NE 68847. 15-17 May. Ed Bryant, S. Carnival. D. Patterson.

V-Con, Box 48709 Bentall Sta., Vancouver BC V7X 1A6. 22-24 May. V. McIntyre, J. Gustafson.

DisClave, 4030 8th St. S., Arlington VA 22204. (703) 920-6087. Wash. DC's big little con.

ConQuest, 4228 Greenwood Pl., Kansas City MO 64111. (816) 753-2450. Poul Anderson, James Gunn, C. J. Cherryh, W. A. (Bob) Tucker, Lee Killough, Don Thompson, John Kessel.

GrimCon, Box 4153, Berkeley CA 94704. 22-25 May. SF & fantasy war and role-play game con.

AmberCon, Box 947, Wichita KS 67201. 29-31 May. Ed Bryant, Bill Warren, Walt Liebscher.

MidSouthCon, c/o Purcell, Rt. 1, Box 322-A, Leoma TN 38468. Chattanooga TN, 5-7 Jun.

WesterCon 34, Box 161719, Sacramento CA 95816. 4-6 Jul. C. J. Cherryh, Grant Canfield.

Denvention II, Box 11545, Denver CO 80211. (303) 433-9774. 3-7 Sep., 1981. C. L. Moore, C. Simak, R. Hevelin, Ed Bryant. The 1981 World SF Con. Join before rates rise again.

WesterCon 35, Box 11644, Phoenix AZ 85064. (602) 249-2616. 2-5 Jul., 1982. Gordon Dickson.

ChiCon IV, Box A3120, Chicago IL 60690. 2-6 Sep., 1982. A. Bertram (Rim Worlds) Chandler, Kelly Freas, Lee Hoffman. The 1982 WorldCon. Go to other cons to prepare for WorldCons.

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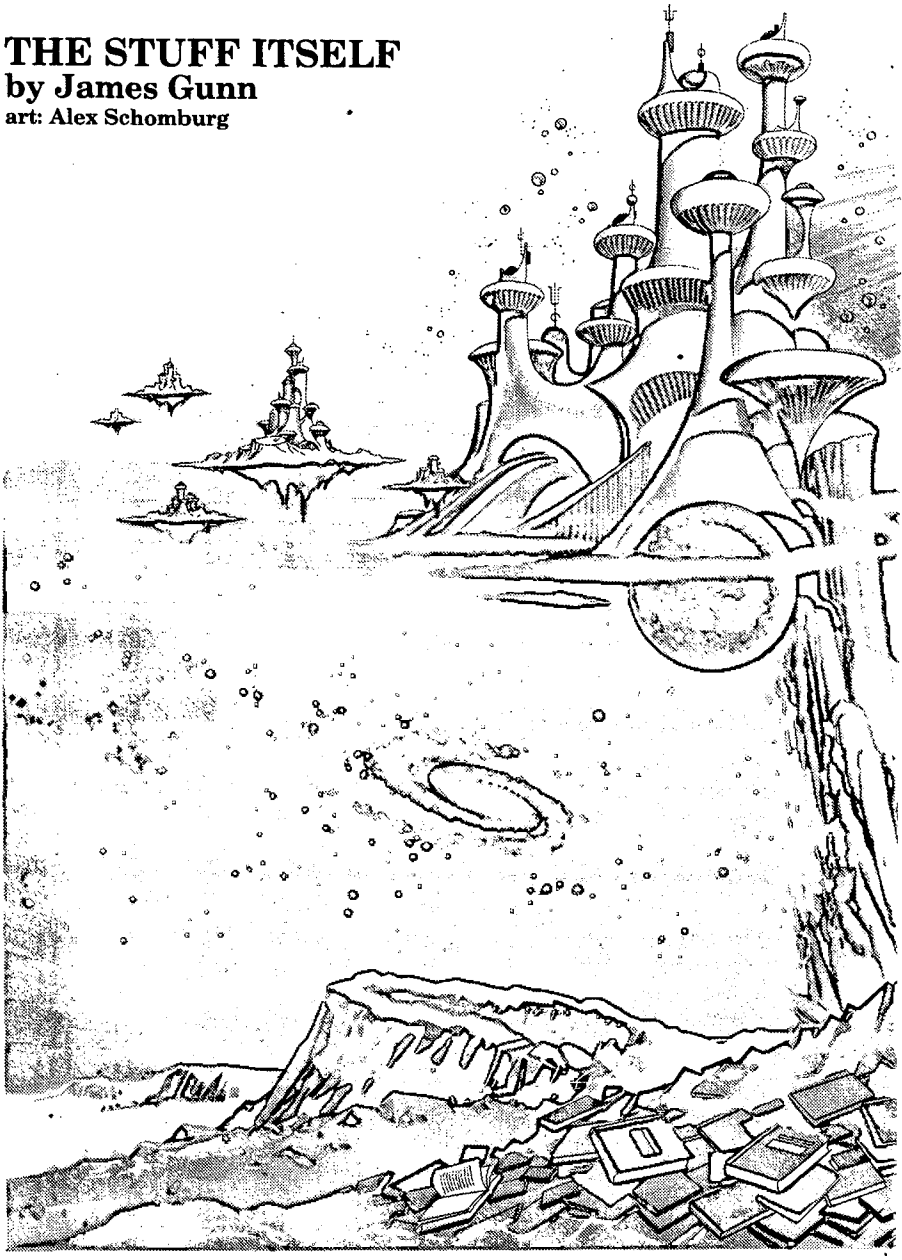
THE STUFF ITSELF

by James Gunn

art: Alex Schomburg



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This article is the last chapter in a forthcoming book on Dr. Asimov, to be published by Oxford University Press.

By mid-1970 Asimov had returned to New York—alone. Talk of divorce had increased in frequency in recent years. "After 1969," Asimov reported in his autobiography, "which seemed to consist, in retrospect, of one long slide toward divorce, there had been an upturn, a kind of pleasant Indian summer, a glimmering twilight that had lasted six weeks. . . ." Then he (and his wife, apparently) accepted the fact that the marriage was beyond saving.

At first Asimov was going to take an apartment in nearby Wellesley while a divorce went forward, and then he learned that his wife would allow only a separation. Divorce in Massachusetts without his wife's coöperation was virtually impossible for a man with Asimov's stern ethical imperatives, so he moved to New York where he could institute no-fault proceedings.

His future second wife, Dr. Janet Jeppson, whom he had met on a few occasions earlier, helped him find an apartment and adjustment to life as a single man after nearly thirty years of marriage. Once more he was back in the city in which he had grown from a child of three to a young man, already a successful but not-well-rewarded-financially science-fiction author, of twenty-nine. Now his situation was different. He was fifty years old. His hundredth book had been celebrated in 1969 with *Opus 100* and numerous interviews, some on television. He was becoming known as the most prolific man of letters of his time; and his reputation as a child prodigy had been supplanted by the image, however exaggerated, of the authority on almost everything.

Moreover, he was much in demand as a public speaker commanding substantial fees. He could find a publisher for almost anything he wished to write—and for some books he did not. He was wealthy; in spite of the impending divorce settlement he would never have to worry about money again, even if he never wrote another word. But that, of course, was unthinkable: writing was his life even if it was no longer his livelihood; he accepted small advances so that publishers would let him write what he wanted to write.

A couple of questions, however, disturbed him. He was not sure he could write in new surroundings: radical changes always brought this terrible possibility into his mind. Each time, however, the fears were unnecessary; and this time was no different. One question

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remained to be answered: would he ever write serious science fiction again. In spite of his statement at the end of his collection, *The Bicentennial Man,* that he had never stopped writing science fiction, the intensity with which he had written his early stories, the amount of himself that he had poured into those hopeful works, had been missing for a number of years.

If anything, his social life improved in New York. He soon was seeing his editors more regularly than ever and, in addition, his old science-fiction friends, Lester del Rey, Judy-Lynn Benjamin (who became Mrs. del Rey), Robert Silverberg, and others, including John Campbell. And he attended various local science-fiction conventions. At one of them on January 23, 1971, Robert Silverberg and Lester del Rey participated in a dialog about "the ins and outs of science fiction." At one point Silverberg illustrated the greater importance of the human aspects of a science-fiction story over the scientific detail by asking why anyone should be overly concerned with some trivial matter concerning—say—plutonium-186.

In the audience Asimov laughed because he knew there was no plutonium-186 and couldn't be. After the dialog he told Silverberg this, according to Asimov's autobiography; and Silverberg shrugged it off. Asimov said, "But just to show you what a real science-fiction writer can do, I'll write a story about plutonium-186."

"Go ahead," Silverberg said. He was putting together the first issue of an anthology of original fiction to be entitled *New Dimensions.* "If you write one that meets my minimum standard of literacy, I'll publish it."

This is the kind of banter that gets exchanged among Asimov and del Rey and Silverberg and Ellison (see Asimov's two introductions to Ellison's *Dangerous Visions*) and a few others. In his autobiography Asimov describes an exchange of insults with an editor and adds, "You can't fool around that way if you don't like a guy." He also describes how he was always getting "wiped out" by his friends. Occasionally, however, these exchanges can get under the skin. When Asimov describes the occasion in his autobiography he inserts the phrase "who knew that very well" between "Silverberg" and "shrugged it off," but in an early introduction to the novel he told the story differently. Silverberg did not remember it that way and Asimov, no doubt feeling that the introduction might damage their friendship, had it removed.

The incident, nevertheless, may have provided the inspiration for what may turn out to be Asimov's last science-fiction novel (unless the *Foundation* sequel comes to pass, or some other challenge stirs

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Asimov to action). The novel that became *The Gods Themselves* might never have been started if Asimov had conceived it as a novel from the beginning.

He describes his attitude toward science-fiction writing in the mid-1960s when Harlan Ellison asked him to write a story for *Dangerous Visions*. He begged off, offering instead to write an introduction (he ended up writing two introductions), because, he said, he lacked the time. His real reason was that "I couldn't face trying to write a story that could pass muster in the 1960s, when such talent as I had suited only the 1950s. I felt that I couldn't measure up any longer and I didn't want to prove it."

Evelyn del Rey helped dispel some of this feeling when she asked him why he didn't write science fiction these days. He replied sadly, "Evelyn, you know as well as I do that the field has moved beyond me." And she replied, "Isaac, you're crazy. When you write, you *are* the field." And he had returned to writing short stories.

A novel, nevertheless, was something different; it may have been well that this one sneaked up on him. It kept growing beyond the five-thousand words that he had promised Silverberg until it reached twenty thousand. That was a short novel. Thinking that Doubleday, which was going to publish *New Dimensions,* might expand the volume to include the extra length of Asimov's story, he took it to Larry Ashmead, Doubleday's science-fiction editor at the time. Ashmead telephoned to say that anthologization was out; he wanted the story expanded into a novel.

Asimov didn't want to expand it; on the spot, however, he offered to write two more sections of equal length: "The story involves an energy source that depends on communication between ourselves and another universe, and it ends downbeat. What I can do is retell the story from the standpoint of the other universe and still leave it downbeat. Then I can take it up a third time in still a third setting, and this time make it upbeat."

"Are you sure you can do this?" Ashmead asked.

"Absolutely positive," Asimov responded, although he wasn't all that certain; he had just made it up on the spur of the moment. But he added in his autobiography, "If I couldn't, I wasn't Isaac Asimov." On March 8, 1971, he dropped in at Doubleday and signed a contract to write the novel. He also set to work to write a different story for Silverberg's anthology—a short story entitled "Take a Match" that appeared in *New Dimensions II*.

The reasons Asimov might have been reluctant to tackle a new science-fiction novel involved not only his feeling that he belonged

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to another and perhaps outmoded generation of science-fiction writers—about this time he was dividing science fiction into periods he called "adventure-dominant, science-dominant, sociology-dominant, and style-dominant," and it was not difficult to perceive that he thought style-dominance was a perversion of Campbell's vision—but he had not written an adult science-fiction novel for more than fifteen years (or any kind of science-fiction novel, including juvenile, for thirteen). Moreover, he had more writing projects than he could handle, and he was involved in a lengthy and disturbing divorce negotiation with his wife. He also found writing science fiction more difficult than anything else.

In the introduction to *Nebula Award Stories Eight,* which he edited for the Science Fiction Writers of America the year after the publication of *The Gods Themselves,* he compared science fiction to other kinds of writing and wrote, "A good science-fiction writer can, very probably, write anything else he wishes (and for more money), if he decides to take the trouble to do so. . . . It is uphill to science fiction; downhill to everything else."

He goes on to hold himself up as the world authority on this subject:

> I began by writing science fiction, yes, and for over thirty years I've been considered a leading writer in the field. . . . But . . . I found that my training in science fiction made it possible for me to write anything. I have written mysteries, both novels and short stories, for instance. I have also written nonfiction books on every branch of science, both popularizations for the general public and textbooks at both the graduate level and the grade-school level. I have written history books, discussions of the Bible, Shakespeare, Byron, and Milton. I have written satires and jokebooks. I have written about 150 books as of now, and I tell you, that of all the different things I write, science fiction is by far the hardest thing to do.

The introduction was entitled "So Why Aren't We Rich?" That was a bit ironic, since Asimov was one of the few science-fiction writers who was rich—probably he was a millionaire by that time. In his autobiography he totals his income at the end of each year. It was a story of increasing financial success that brought him from the uncertainty of the early days when he waited anxiously for a check from Campbell to a growing bank account and growing confidence until he could leave his salaried position at Boston Univer-

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sity with scarcely a thought about insecurity. He stopped revealing his annual income with the year 1962: 1961 had amounted to $69,000; 1962, to $72,000. In 1970, his divorce trial revealed, his income was $205,000.

By almost any measure (and certainly his own, since he did not have expensive habits), he was financially secure, even though some of his savings might be invested in New York City bonds (as they were) and a generous settlement with his wife was ahead. Mostly, however, his income came from books other than his science fiction. None of his books was a best seller—and his science fiction continued to sell well—but the sheer volume of the non-fiction had brought him to his present status. Only about 30 of those first 150 books he wrote or edited were science fiction, and books such as *The Intelligent Man's Guide to Science,* his first major science-popularization success, brought him a single royalty check of $27,600.

So it was that *The Gods Themselves* came to represent a return and a confirmation and a risk that Asimov found himself willing to take. It was an act of daring that deserved the rewards it earned: the novel sold well, was critically well received, and won both Nebula and Hugo Awards. Asimov had received the stamp of approval of his fellow fans and his fellow writers.

The novel also has particular merits as a summing-up point. Asimov had told Silverberg that he would show "what a real science-fiction writer can do. . . ." By this he meant that he would write a science-fiction story in which the science was at least as important as the characters, a story which could not happen without the scientific content. It would conform to the definition he used in an article for *The Writer* about 1951 and repeated in his frequently reprinted essay, "Social Science Fiction," in Reginald Bretnor's 1953 collection, *Modern Science Fiction:* "Science fiction is that branch of literature which is concerned with the impact of scientific advance upon human beings." In the *Modern Science Fiction* essay, he inserted the word "Social" before "science fiction."

In spite of the definition, scientific advance was not always at the heart of Asimov's science fiction. Occasionally a hard scientific datum or development would inspire a short story, but Asimov's novels were more inspired by history than science; they were more speculative than extrapolative.

The Gods Themselves would be different. The idea for it had sprung from a scientific anomaly—the impossibility of plutonium-186—and it would develop into a story whose science was as hard as any conceived by Harry Stubbs, whose carefully extrapolated

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alien environments began to be published in *Astounding* in June, 1942 (only three years after Asimov himself), under the pseudonym of Hal Clement. The impossibility of plutonium-186 was basic to the story. For the reader to understand this, Asimov had to educate him or her in the complexities of nuclear physics.

One important fact was the structure of the atomic nucleus. The nucleus is composed of neutrons and protons, identical in weight but differing in charge. Both are massive as atomic particles go—many times more massive than electrons, for instance, which orbit in "shells" around the nucleus; give the element its chemical properties; and balance, with their negative charge, the positive charge of the nucleus. Ordinarily like charges repel each other; and the protons clustered together in the nucleus ought to push each other away; but they are held together by what is known as the strong nuclear interaction, the strongest known force in the Universe. It seems to be exerted by the neutrons, and a number of protons in the nucleus need an even larger number of neutrons to hold them together.

Elements are placed in the periodic table of elements according to their charge, which is the number of electrons they possess as well as the corresponding number of protons in the nucleus. Their atomic weights, however, are the total of protons and neutrons in the nucleus; sometimes this is not a simple number when an element has isotopes (different forms of the same element with a neutron more or less in the nucleus) whose natural atomic weights average out as a fraction.

The reason plutonium-186 is impossible, then, is because its charge would be 94, which makes it plutonium, and its atomic weight would be 186. The number of protons in the nucleus would be 94; if one subtracts this from 186, one arrives at the number of neutrons in the nucleus: 92. This is not enough neutrons to keep the protons from repelling each other. The plutonium nucleus that we are accustomed to has an atomic weight of 242, which means that the 94 protons have 148 neutrons to hold them together.

Asimov was faced with the logical problem of rationalizing the existence of plutonium-186. It could exist, he realized, only in an alternate Universe in which the strong nuclear interaction was even stronger than in our Universe—perhaps one hundred times as strong—in order to keep the protons together. Asimov could have written a story about such an alternate Universe—a place in which plutonium-186 could exist—and eventually he did. But that alone would not have met the challenge. A Universe such as that, with

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no connection to our world, would have been remote from the concerns of the reader. He wanted to bring the plutonium-186 into our Universe, and he did—by exchanging it for an isotope of tungsten with an atomic weight of 186. Tungsten-186, which has a charge of 74, has 74 protons in the nucleus but 112 neutrons to hold them together. How could it become plutonium-186? By changing twenty neutrons in its nucleus into twenty protons.

The scientific background of the story must have taken shape in much this way: in an alternate Universe that has a much stronger nuclear interaction plutonium-186 would exist but tungsten-186 would not—it would be unstable because it has too many neutrons (or too few protons). In our Universe tungsten-186 is stable but plutonium-186 is unstable. If quantities of the two elements were exchanged between the two Universes, power would be released in each of them: in our Universe plutonium-186 would emit positrons, as protons within the nucleus were converted into neutrons; and in the alternate Universe tungsten-186 would emit electrons, as neutrons were changed into protons. In each Universe positrons would annihilate electrons and produce energy. In the process our Universe would lose twenty electrons and the alternate Universe would gain twenty. The exchange could mean a clean, inexhaustible power source for both Universes.

One question Asimov does not raise (or answer), possibly because it might sabotage the scientific basis for his novel, is the amount of energy required to transfer the materials between the Universes. If the laws of nature (and human nature as well) hold true as we have experienced them, it seems likely that the transfer would use up more energy than it would produce. For this reason, perhaps, Asimov has the transfer effected, mysteriously, by aliens in the alternate Universe; he thus avoids raising the question of the energy cost of transfer: the human characters can never know the alien situation, and the aliens have alien concerns.

There is a cost involved, however—and this may explain that entropy is not violated after all—and this cost becomes the dynamic force behind the narrative. Asimov has commented that when he writes fiction he is delighted to find an element he inserted into a story simply because it occurred to him coming exactly to hand later when he needs it. The complication of *The Gods Themselves* must have delighted him.

All of this, however, is esoteric and difficult fictional material. Though interesting, even fascinating, speculation, working it into a piece of fiction is something else. Asimov solves this problem by

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focusing on the nature of discovery. The process by which plutonium-186 is introduced into our Universe becomes the substance of the first half of Part I of the novel.

The Gods Themselves, as Asimov promised Ashmead on the spur of the moment, is divided into three roughly equal sections. The title of the novel is taken from a line of Schiller's play *Jungfrau von Orleans* (Joan of Arc), "Against stupidity, the gods themselves contend in vain," and each of the three Parts has a phrase of the quotation as an epigraph. The first, "Against Stupidity . . . ," describes how Frederick Hallam discovers plutonium-186. An old reagent bottle labeled **tungsten metal** on a desk that he had inherited when he came to work at the university one day contains clear iron-gray metal pellets instead of dusty gray pellets. Hallam takes the pellets to be analyzed and discovers that they are the impossible plutonium-186. In subsequent days he discovers that the substance, originally non-radioactive, gradually becomes more radioactive; it emits positrons. For safety the plutonium-186 is powdered, scattered, and mixed with ordinary tungsten and then, when that grows radioactive, with graphite.

Eventually, at a seminar organized to discuss the problem, the possibility is raised that the plutonium-186 may have come from a parallel Universe (which came to be called the para-Universe) and then that it may have been sent deliberately into our Universe by an intelligent agent. After some experimentation, Earth sets up a power system to make use of the new energy; and apparently the aliens in the para-Universe do the same thing with the tungsten. The process comes to be called an Electron Pump, since in effect it pumps electrons from our Universe into the para-Universe; more formally it is called the Inter-Universe Electron Pump. It becomes a major project, associated with a university, and eventually the source of plentiful, non-polluting energy at almost no cost.

This much could be the beginning of a utopian novel that describes how humanity uses the new energy to improve its condition, or a dystopia that shows how humanity misuses the energy to turn a blessing into a curse. Neither would be particularly different nor particularly promising. Asimov turned it into something unique, and something with the special substance of hard-core science fiction, by dealing with the scientific consequences of the Electron Pump and the human difficulties of the people in charge perceiving these consequences and being willing or able to act upon them.

Asimov's mechanism for accomplishing this is to tell the "Against

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Stupidity" part from the third-person viewpoint of an antagonist, Peter Lamont, who sets out to write a history of the development of the Pump. His first approach to Hallam, however, infuriates Hallam and embitters Lamont. Hallam is delighted to cooperate until Lamont innocently suggests that the para-men are more intelligent than humans, since they initiated the exchange and even sent over directions on iron foil for building the Pump. Hallam calls such notions "mysticism" and shouts Lamont from the room.

Lamont, determined to pick holes in the project, recruits a new University scholar, Myron Bronowski, a translator of ancient Etruscan writing, to aid him in communicating with the para-men. And Lamont tries to find some unforeseen problem with Pumping. "Everything in history had a catch," he thinks. "What was the catch to the Electron Pump?"

One possible problem is what happens during the process of Pumping. The effect of the transmission of electrons had been considered and discarded: the electron supply could last for a trillion trillion trillion years—and the entire Universe wouldn't last a tiny fraction of that. But Lamont perceives that the physical laws of the two Universes are being exchanged as well, and that could mean trouble. Because the significant difference between the two Universes is the strength of the nuclear interaction, nuclear fission is more likely in our Universe, nuclear fusion in the para-Universe. As the nuclear interaction grows stronger in our Universe, the sun may turn nova; and as the reaction weakens in the para-Universe, their small suns will have greater difficulty sustaining the fusion reaction and will cool down.

Bronowski gets a message from the para-Universe. It says: "F-E-E-R." Lamont tries to persuade the influential Senator Burt, head of the Committee on Technology and the Environment, to intervene, but Burt feels that he cannot succeed against Hallam. Lamont also fails with Prof. Joshua Chen, who prefers the possibility of immortality implied by the cheap energy of the Pump. Then Bronowski gets another message: "PUMP NOT STOP NOT STOP WE NOT STOP PUMP WE NOT HEAR DANGER NOT HEAR NOT HEAR YOU STOP PLEASE STOP YOU STOP SO WE STOP PLEASE YOU STOP DANGER DANGER DANGER STOP STOP YOU STOP PUMP."

Bronowski, however, sees the futility of trying to convince the world of the danger. He quotes Schiller and leaves Lamont alone and frustrated and without hope.

Asimov uses a couple of narrative devices to involve the reader more quickly in Part I. Rather than beginning with the discovery

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of plutonium-186 and working forward to the period thirty years later when Lamont's involvement begins, Asimov, true to Campbell's ancient advice, begins not even with Lamont's entry upon the scene but after Lamont's and Bronowski's efforts to communicate with the para-men are about to succeed. Actually, Bronowski has received the first message and is waiting to tell Lamont.

Asimov starts the novel, in fact, with a segment numbered "6." A note facing the contents page tells the reader that the book begins with section 6. "This is not a mistake. I have my own subtle reasoning. . . ." Then the book picks up section 1, as Lamont learns how the discovery of plutonium-186 occurred. Subsequently, fragments of section 6 alternate with sections in numerical order up to the end of section 5, in which Lamont presents his theory to Hallam in a way he knows Hallam will not be willing to consider. Section 6 then concludes with the "F-E-E-R" message, and Part I continues to its conclusion in a straightforward chronological (and numerical) sequence.

These devices would not be sufficient to sustain the narrative without the details Asimov supplies on the nature of scientific discovery and the inner workings of the academic and scientific establishments. At last Asimov turned to writing science fiction out of his own experience, as he had not in earlier stories. His description of the discovery of plutonium-186 draws not only upon his extensive research into and writing about science but surely, for characters as well as events, upon his experiences within the academic world.

Hallam, for instance, pushes his investigation into the metal that has changed within the reagent bottle on his desk because he had said, when he discovered it, "That's not the tungsten," and his colleague across the hall, a more highly regarded young scientist named Benjamin Allan Denison, challenged him with, "How would you know?" If Hallam had not been pushed, the plutonium might simply have become more and more radioactive until it exploded with catastrophic results. Later in Lamont's investigation he discovers that official accounts credit Hallam with speculations about the origin of the plutonium although others had actually made the remarks. Hallam, however, headed the team to investigate the plutonium, and Hallam received the acclaim and the power.

Later Asimov describes a similar process when Lamont is set in opposition to Hallam by Hallam's reaction to his innocent suggestion about the superiority of the para-men, and again when Lamont reaches his inspiration about the Pump after a colleague remarked that Hallam was untouchable "as long as the Electron Pump is the

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key to human paradise." Still later Asimov describes the process of discovery as Lamont follows the elusive train of thought that begins with "what was the catch to the Electron Pump?" and ends with the gradual equalization of natural law: "within a month he had that feeling that every scientist recognizes—the endless click-click as unexpected pieces fall into place, as annoying anomalies become anomalous no more—it was the feel of Truth." Asimov seems to be saying that discoveries begin with accidents, but that those accidents happen to people who are prepared by education and temperament and ability to recognize them when they occur and to follow them to their ultimate meanings.

The characters are more realistic than Asimov customarily presents. In fact, the novel offers more anti-heroism than heroism, in keeping with the trends that began with the New Wave. Hallam is an ordinary and unlikeable man pushed into a position of power by accident; and Lamont, who tries to tear him down, is not much better. Lamont simply happens to be right and Hallam happens to be wrong. Lamont's motivation is revealed at the end of Part I, however, when he mourns not for the end of the world but that "no one on Earth will live to know that I was right."

The characters seem to be drawn, if not from real life as Asimov did with his first mystery novel, *The Death Dealers* (1958), at least from observation and combining of characteristics. In Hallam's reaction to Lamont's suggestion about para-men superiority, the reader might sense a hint of John Campbell's reaction to the possibility of alien superiority in the stories presented to him—some of them by Asimov himself.

Part II, which is entitled ". . . The Gods Themselves . . . ," is concerned with the para-men and the para-Universe. Like much else that Asimov has done in the second half of his career (the novelization of *Fantastic Voyage, The Sensuous Dirty Old Man, Murder at the ABA*), Part II was the result of a challenge. Some of the challenges have been posed by others; some, by Asimov himself. This one happened when a paperback house expressed interest to Ashmead in the novel after seeing Part I. Its editor asked, "Will Asimov be putting sex into the book?" and Ashmead responded, "No!"

When Ashmead reported the conversation to Asimov, Asimov "felt contrary enough to want to put sex into the book. I rarely had sex in my stories and I rarely had extraterrestrial creatures in them, either; and I knew there were not lacking those who thought that I did not include them because I lacked the imagination for it.

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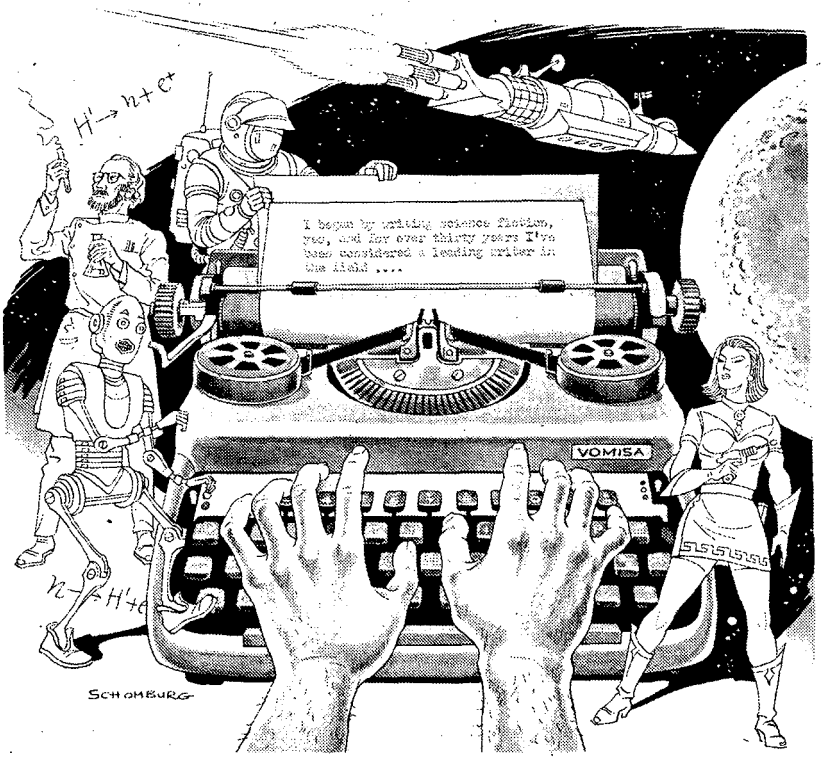

"I determined, therefore, to work up the best extraterrestrials that had ever been seen for the second part of my novel."

The extraterrestrials are among the most fascinating and believeable aliens yet imagined in science fiction. Part II also is concerned almost entirely with sex—the fact that it is alien sex must have made it all the more enjoyable for Asimov.

The planet on which the para-men exist in the para-Universe is a barren, rocky place orbiting, as scientists in Part I speculated, around a small, dim sun. The para-people find it congenial, though not as congenial as it once was, because their Universe, which burns its suns more rapidly because of the ease of the fusion reaction, is running down. The para-people are energy eaters. They "eat" by walking or basking in the sunshine. They also spend much of their time involved with sex or family.

They are not quite gods. We might consider them more like ghosts, because they are nebulous creatures, some more nebulous than oth-

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ers. As infants they can melt into each other, or even into rocks, and one sex retains the ability to melt throughout its lifetime; in fact, their reproduction depends upon it. This sex is called an Emotional or mid. There are two other sexes: a Rational or left-ling, and a Parental or right-ling. When the triad is formed, the Emotional helps them melt together, a state in which they lose consciousness and that may last for ecstatic hours or days. During the melting, if the conditions are right, a seed may be passed from the Rational to the Parental by the Emotional. In the Parental the seed incubates into a new para-child.

Para-children are born in sequence: first a Rational, then a Parental, and finally an Emotional. The creation of an Emotional requires a great deal more energy than the others and is thus more difficult. The Parental not only gives birth to the para-children but cares for them until they are mature. Parentals customarily are concerned with procreation and family; they are largely motivated by instinct. Emotionals usually are concerned with eating—since they are more tenuous, they require longer to absorb the sun's energy—and melting; as a consequence Emotionals usually are flirtatious, social, and foolish. Rationals spend their time learning and thinking. After three children have been born (infrequently after a second three) the Rational determines that the time is right and the triad "passes on."

A second group of alien creatures lives somewhat apart. They are called Hard Ones because they cannot melt; indeed, contact with the Soft Ones causes the Hard Ones pain. The Hard Ones are more rational than the Rationals; they have their own scientific concerns but act as tutors to the Rationals and mentors to the others.

Part II is about a triad that differs in significant ways from the others. Odeen, the Rational, is more intellectual than other Rationals, and is the favorite pupil of a Hard One named Losten. Tritt, the Parental, is moved almost entirely by his sense of the fitness of things, but he exercises more initiative than the usual Parental: he pesters Odeen to get them an Emotional so that they can melt properly and is even bold enough to ask Losten. Losten produces Dua, the Emotional, who is relatively unconcerned with eating and thus has difficulty helping the triad produce a baby Emotional; Dua also is overly concerned with thought so that other Emotionals taunt her with the dirty name of "Left-Em," which refers to an Emotional who behaves like a Rational. Odeen enjoys talking to Dua about his ideas, however; and all three enjoy the melting, which Dua does so much better than the others, perhaps because she is different.

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Dua is unhappy, and this provides much of the structure of the story. She suffered a trauma when her Parental's triad passed on; she does not want to help create a baby Emotional because then she might have to pass on. Odeen, who is happy with Dua and even fonder of Tritt, is unhappy only because Tritt is unhappy. Tritt is unhappy because he does not have a little Emotional to complete his group of children. He keeps after Dua to eat and after Odeen to make her eat.

All of this is gradually complicated by what Odeen and later Dua learn about their world. Thousands of cycles ago, for instance, there were many thousands of Hard Ones and millions of Soft Ones. Now there are only three hundred Hard Ones and fewer than ten thousand Soft Ones. Energy is diminishing; their sun is cooling. All the stars in their Universe are coming to an end. The fusion reaction in the para-Universe works so easily that all the particles are combined after a million lifetimes.

So the Hard Ones, led by an unseen and mysterious Hard One named Estwald, have initiated the plutonium-tungsten exchange with Earth's Universe in order to provide an artificial source of energy to keep their world going. At first the energy is harsh and bitter to the taste, but Estwald has been working to improve it.

Part II comes to a climax when Tritt, pushed beyond endurance by Dua's unwillingness or inability to cooperate in producing a baby Emotional, goes to the caverns of the Hard Ones to get Estwald's help. When he does not find Estwald he does something whose results are not apparent until later. Dua, meanwhile, in drifting away from Tritt, goes to the caverns of the Hard Ones and senses Tritt's presence. She melts completely into the cavern wall, which she has never done before, and in this state finds herself much more able to understand the Hard Ones and what they are doing. She returns in excitement to Odeen and asks him questions while, hungry for once, she eats at the private feeding station that Odeen has installed for her (Dua is hungry because her melting into the rock has consumed energy).

While Dua is eating, Odeen discusses with her the differences between the Universe from which they are getting energy and their own. She has the feeling that something bad happens in the process. Odeen says that their sun cools down a little faster but that they don't need the sun anymore. That wasn't what was bothering Dua, but her feeding has made her larger and compacter, and she makes an unusual erotic advance that results in a new and more satisfying melting than ever.

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Later Dua asks Odeen whether their Universe's laws don't get into the other Universe. Odeen says they do, and their suns speed up and get hotter. Dua realizes that this is where she keeps getting the something-bad feeling. Odeen admits that speeding up the nuclear fusion might make the suns in the other Universe explode. Dua is horrified—this might kill the people in the other Universe. Odeen doesn't understand. They won't need the people in the other Universe to make the exchange, he says, because the explosion of their sun will create such a flood of energy that they can tap it directly; it will be enough to last a million lifetimes.

Hard Ones arrive at this moment to ask if one of them stole a food ball (a storage battery charged at the Positron Pump). Tritt confesses that he did it to feed Dua, and now he has a baby Emotional growing inside him. Dua flees in anger, feeling that Tritt has tricked her into helping create a baby Emotional, that Odeen connived in it, and that now they will pass on. She thinks she learns a bit later that the Soft Ones are machines created by the Hard Ones, and when their usefulness is over they are destroyed by the Hard Ones. She also learns that communication with the other Universe is possible. Eventually, after hours spent in the walls of the Hard Ones' caverns, she learns how to send messages herself, first "F-E-E-R" and then the message beginning: "PUMP NOT STOP NOT STOP WE NOT STOP PUMP . . ."

Odeen and Tritt come to find her, just as she has sent that message. She has used up almost her entire energy doing so. As they restore her from a battery, Odeen tells her that she was partly right: the Hard Ones are the only living creatures in their world, but that is because the Soft Ones are the immature form of the Hard Ones. When the Soft Ones melt they become a Hard One for the period they do not remember. They must return to being Soft Ones while they keep developing. When the Rational realizes the true state of affairs, all three have developed sufficiently that the Rational can guide a perfect melt that will form the Hard One forever. The Soft Ones cannot be told about this by the Hard Ones because then the development would be aborted, the time of the perfect melt could not be determined, and the Hard One would form imperfectly.

For generations the Hard Ones have been combining triads with great care to form particularly advanced Hard Ones. The triad of Odeen-Dua-Tritt was the best ever put together. And Dua was the most important addition to the triad. Losten, who brought Dua to Odeen and Tritt, was once the triad that gave birth to Dua; part of Losten was Dua's lost Parental. The Odeen-Dua-Tritt Hard One is

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destined to be the best ever formed. They melt and form—Estwald.

Once more Asimov is not content simply with the problems of the energy exchange, which Hallam has called "the road that is downhill both ways." That part has its central interest, to be sure, with its twists and turns and logical confirmations. In the para-Universe the Electron Pump is called, of course, the Positron Pump: it pumps positrons, not electrons. The facts of the para-Universe that have been the subject of ingenious speculation in Part I are strikingly confirmed in Part II: the small suns, the relatively short lifespan of the para-Universe (the questions raised about how the para-Universe was created and if it was created at the time our Universe was created why it is still around, or if later by what mechanism, are avoided by Odeen's comment that time may pass differently in the two Universes), and most of all in the alien life patterns. Creatures of diffuse substance are made possible by the stronger nuclear force, and energy-eaters are more probable where energy is made more easily available by the fusion process. Odeen points out that in their universe "matter doesn't fly apart" because "the tiny particles do manage to cling together across the space that separates them." Melting is not possible in the other Universe, Odeen says, because the particles spread the wave-forms more and need more room. With the transfer of natural law from the other Universe, melting would slowly get more difficult, but the Universe would long be over before it became noticeable. It is even credible that creatures who feed directly on energy might be more likely to recognize the existence of an alternate Universe and be able to transfer material to it. Moreover the para-people have the motivation to initiate the exchange: their own imminent starvation and racial death.

These details must have delighted Asimov—the "click-click as unexpected pieces fall into place, as annoying anomalies become anomalous no more" —especially the attributes of the Hard Ones: the Hard Ones are most rational and are mostly concerned with the mind and their inquiries into the Universe not only because they are the result of a process guided by a Rational but because they are more dense. Rationals are more dense than Parentals who are more dense than Emotionals; thus Emotionals rarely are capable of thought, Parentals are capable of thought only about family matters, and Rationals devote most of their time to abstract thinking. In the para-Universe to be dense is to be intellectual. (This does not work out completely—Dua, intellectual though she is, has "retained a girlishly rarefied structure.") Thus when Dua merges with the

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cavern wall and becomes more dense, she can understand many things, including the language of the Hard Ones: they must use air vibrations instead of the energy exchange or telepathic communication of the Soft Ones.

All of this, however, even Dua's concern about the people in the other Universe (a consequence, perhaps, of her seldom-used Emotional attributes), which leads to the sending of the messages, is reinforced by the main narrative structure of which the relationship between the Universes is a subordinate part. The main structure concerns the triad and the working out of its problems: Tritt's desire for an Emotional and then a baby Emotional; Odeen's attempt to keep the triad harmonious, his pleasure with Dua, and his greater love for Tritt; and mostly Dua's difference and her desire to understand her situation and to avoid producing a baby Emotional and passing on. In addition to the narrative conflicts, the reader enjoys the science-fictional delight of the working out of the alien tri-partite life form.

Moreover, Part II has a plentiful supply of Asimov's favorite fictional device: the mystery. Several mysteries demand solutions. Who are the Hard Ones, and why do they never talk about themselves? Why do they teach the Rationals, and what is their relation to the Soft Ones? What happens to Soft Ones when they pass on? Who is Estwald, and why does he never appear? Other intriguing questions are raised for answering by the events of the story.

Beyond this even are the philosophical and psychological comments implied by the narrative, and the style in which the narrative is presented. In Part I Asimov drew upon his experience to describe the nature of scientists and the process of science. In Part II he drew upon his experience with people on a more intimate level to describe the relationships between the sexes, even if there are three of them. Indeed, the tri-partite nature of the Soft Ones, which eventually combine into one mature Hard One, allows Asimov to deal with the multiple facets of human psychology.

A psychologist might suspect that Asimov's Emotional, Parental, and Rational represent Freud's Id, Superego, and Ego. On the other hand, Elizabeth Anne Hull in a paper to be published in *Extrapolation,* performed a fascinating analysis of the novel according to Eric Berne's Transactional Analysis. But the Parental is not Freud's Superego. He may be closer to TA's parent, but the Emotional, in its customary para-Universe form, is not TA's child, it seems to me.

Asimov has denied that he knows anything about Transactional Analysis or Freud, and has added, a bit disingenuously perhaps (for

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he has made his fortune out of making obscure material comprehensible), that he probably wouldn't understand them if he did. No one need accept Asimov's statements about himself as absolute truth; in the afterword to Olander and Greenberg's collection of essays entitled *Asimov* (1977), Asimov first builds a case for his not having done any of the things the essays discovered in his work because he wrote too fast and didn't have the kind of knowledge involved, but then reversed the situation by admitting that everything discovered might have been in his unconscious. His customary posture about literary criticism, and often psychological analysis as well, is to deny conscious intent. In 1950, however, he sat, unannounced, in a classroom in which his story "Nightfall" was analyzed, then introduced himself afterward with the comment that the analysis was all wrong. The professor (Gotthard Guenther) replied, "What makes you think, just because you are the author of 'Nightfall,' that you have the slightest inkling of what is in it?" Ever since Asimov has been willing to admit that his subconscious may have slipped things into his story that he did not consciously intend.

In this case, however, I believe that Asimov was not so much dealing with the parts of human psychology as with the nature of men and women. He says that he was imprinted at an early age with the feeling that women were puzzling creatures of mystery, and though he has learned something about them he cannot shake his early imprinting. Thus Part I of *The Gods Themselves* has no women characters, and Part III has a woman in an important role (and significantly, in terms of sexual differences, as an "Intuitionist") but working as a tour guide.

Part II, however, is focused on Dua, for whom Asimov uses the pronoun "she." Tritt and Odeen are each referred to as "he." It is the Emotional who is necessary for sex, who has the power to say "yes" or "no." Most Emotionals are foolish, silly, empty-headed creatures, who are concerned mostly with coquettishness and gossip and basking in the sun; they are even described as gluttonous. They like the company of other Emotionals: Odeen reflects that "the Rational had his teacher . . . and the Parental his children—but the Emotional had all the other Emotionals." Odeen finds them incomprehensible: "Who could tell what any Emotional thought?" he asks himself. "They were so different they made left and right seem alike in everything but mind."

In the Rational, Asimov surely identifies himself, the rational man, loving to learn, loving to teach, puzzled by the irrationality of the people around him, by the stubborn parental drives that have

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created the most serious problem facing the world, and even more puzzled by those emotional responses to situations that cannot be reached by reason. In the novel, Rationals have little understanding of emotional matters; Odeen reflects that "there was almost a perverse pride among Rationals in their relative poverty of perception. Such perception wasn't a thing of the mind; it was most characteristic of Emotionals. Odeen was a Rational of Rationals, proud of reasoning rather than feeling. . . ." Only Rationals, too, are embarrassed by their feelings; Odeen, for instance, when he first meets Tritt, feels embarrassed by an inner warmth and the feeling that there was something he wanted that was utterly divorced from thought.

The Parental is less easy to assign sex. Asimov calls them "he," and Dua calls her Parental "Daddy." It would be too easy to assign them female roles; in any case, it rings false. Perhaps the Parental is an amalgam of the male and female impulses to procreation and family building; Asimov himself, according to the evidence of his autobiography, is a concerned and devoted father. The characteristics displayed by Tritt seem relatively unappealing; he is stubborn and uncaring about anything except his own satisfaction, which, to be sure, results in the continuance of the species and without which it might well have died out long ago. In the para-Universe with its falling birthrate this instinctive behavior seems essential, and Asimov grants it its necessary place.

Rationals are not without flaws. If we interpret them as men, Asimov sees them as being unable to respond emotionally frankly and without embarrassment, and he portrays them as unable to imagine the agony of an Earth destroyed by a nova, or even, in their lack of empathy, being unable to conceive of the humanity of an alien. The final melting of the triad into a Hard One may not be so much the uniting of the parts of the psyche but the blending of flawed humans into a unified whole person combining male and female attributes, as well as their jointly shared parental instincts, into one rational being.

Finally, it might be noted that Dua, the focus of Part II, is different from other Emotionals. As a female, Dua is concerned with rationality; she finds Odeen more fascinating, much more interesting than Tritt, and her fellow Emotionals are hopeless. "Dua was so non-Emotional an Emotional!" Odeen thinks. She is curious; she wants to find out why things are as they are; and she enjoys having Odeen teach her as much as Odeen enjoys teaching her. Odeen is pleased that she is different, pleased that she wants to share his intellectual

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life, and pleased that he is pleased. Without going too far into an analysis of Asimov's personal life, one might speculate that he is comparing his first wife and her lack of interest in his work with his second wife (a physician, a psychiatrist, and after their marriage a novelist as well) and her ability to share his interests and intellectual life.

All of this may not endear Asimov to militant feminists. But if Part II has a human message as well as a novelistic one, it may be in support of the feminist position that traditional sex rôles should not keep men from expressing their emotions or women from areas of life traditionally considered closed to them by biology or character.

Asimov always has insisted that he has no style as a writer, that all he wants to do is write clearly. Joe Patrouch (in his 1974 book, *The Science Fiction of Isaac Asimov*) has pointed out, accurately, that simple sentences and clear statements are in themselves a style. Asimov has even been a bit critical of writers who seemed to value style over content, and his famous categorization of science fiction into periods ending with style-dominance scarcely concealed a note of disappointment; he valued the sociology-dominant period into which most of his own work fell.

The first two parts of *The Gods Themselves,* nevertheless, seem style-conscious to an extent unusual for Asimov. The sentences are as straightforward; and, except for the scientific explanations, the vocabulary is as unadorned. A sense of place is no more evident than ever (and less than in the *The Caves of Steel* and *The Naked Sun*)—even the alien landscape, often the colorful foreground of science fiction, is described simply as rocks and caverns. But the conscious arrangement of narrative elements and the way in which Asimov shares this artfulness with the reader is clearly a matter of style. In Part I, this resulted in starting with section 6 and then flashing back to pick up the beginnings of the plutonium-186 story. In Part II, Asimov echoes the tri-partite nature of the aliens by dividing the narration into segments labeled "a" for those in which Dua is the viewpoint character, "b" in which it is Odeen, and "c" in which it is Tritt, with common numbers to designate the progressing sections as "1a," "1b," "1c," "2a," and so forth. In their individual narratives, Dua, Odeen, and Tritt recall the part of the story that is appropriate to each—Dua the parting with her Parental, Odeen the meeting with Tritt, Tritt the asking for an Emotional who turned out to be Dua—and each subsection moves the basic story forward as well. The logical progression falters only after "6b," at which point it skips Tritt's narrative segment (all three viewpoints are

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represented at the end of "6b," as the melting into the Hard One occurs) and moves directly to "7abc," in which Estwald steps forward. This, it seems to me, is fully as stylish a device as any cast up by the New Wave.

Part III is neither as involving nor as intriguing as Parts I and II. Perhaps it succumbs to Gunn's Law, which asserts that science-fiction novels tend to fall apart at the end. Asimov confronted the novelistic imperative to wind up the threads laid out with such care in the first two parts; but the winding-up process is seldom as exciting as the laying-out, and Asimov has an entire third of the novel devoted to it.

Part III is entitled ". . . Contend in Vain?" —with the question mark added to provide a suggestion of hope that is ultimately justified by the resolution. The scene is our Universe about a year after Lamont tried to convince Senator Burt that the Pump should be stopped. The narrative is straightforward. Two people traveling on the same vessel arrive on the moon with a group of tourists. One is described only as a middle-aged tourist. The other is Konrad Gottstein, Commissioner-Appointee to the Moon; formerly he was on the staff of Senator Burt and had been assigned an investigation of the Electron Pump for waste and personal profit-taking. The middle-aged tourist makes friends with the Lunarite tour-guide Selene (pronounced SELL-uh-nee; Asimov often makes a point of how his characters' names are pronounced), and arouses her interest by asking to see the Earth-controlled proton synchrotron.

Selene is the sexual partner of Lunarite physicist Barron Neville, who is engaged in research later revealed as involved with creating an Electron Pump, or something like it, on the Moon. The Moon has no Electron Pump because the para-Universe will not accept tungsten made available there. Neville hopes to be able to learn enough to initiate an exchange from our Universe rather than depending upon the para-people to do it. He also believes that Earth is conspiring to keep the Electron Pump from the Moon and asks Selene to see the middle-aged tourist again and find out what he is doing on the Moon and why he is interested in the proton synchrotron.

Later, after Selene has shown the middle-aged tourist something of life in the man-made tunnels of the Moon (there is some resemblance here to the caverns of the para-world) and reported on their conversations to Neville, Gottstein confronts the middle-aged tourist with Gottstein's knowledge of his identity: he is Benjamin Allan Denison, the once-promising radio-chemist whose challenge to Hal-

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lam (described in Part I) resulted in Hallam's stubborn pursuit of the plutonium-tungsten exchange, the development of the Electron Pump, and Denison's fall from science into male cosmetics as a result of Hallam's enmity. Denison rose to a vice-presidency, which he has given up to emigrate to the Moon; where he hopes to re-establish himself as a physicist.

Gottstein remembers him as a scientist who came to Burt's committee with the theory that Lamont later developed independently. Gottstein obtains Denison's agreement to keep him informed about anything he might discover in his dealings with the Moon scientists. The departing Commissioner has warned Gottstein that something might be going on that needed watching.

Denison tells Neville about himself and is told that he can work in the Lunarite laboratories. In the laboratories Denison is able to use a Pionizer, invented by the Lunarites, which does in a small space what the proton synchrotron does in large. With the Pionizer he gets results that he feels confirm the dangers he and Lamont have warned about: within a few years or a few decades, the growing strength of the nuclear force will lead to the explosion of the sun, perhaps even the entire arm of the Galaxy. Neville discounts Denison's findings, saying that they are within the limits of error of his process. Denison explains to Selene that people believe what they want to believe: Neville does not like to leave the tunnels in which he was born and raised (like the city-dwellers in *the Caves of Steel,* he suffers from agoraphobia) and wants the Electron Pump so badly because then the Moon will not be dependent upon solar batteries, for which people must go out on the surface. Denison suggests to Selene that Earth will not shut down the Electron Pump because it is dangerous; it must be offered something better. He offers a clue: the number two is ridiculous and cannot exist. Selene guesses what he means; if there are two alternate Universes, there must be an infinity of them.

The accuracy of Selene's guess surprises Denison. Selene reveals, in a conversation with Neville and later with Denison, that she is an Intuitionist. Genetic manipulation, some of which aimed at producing more people with intuitional ability, was discredited on Earth after an (undescribed) time of troubles called the Great Crisis reduced Earth's population from six billion to two billion and left behind a permanent distrust of technology and a reluctance to risk change because of the possible side-effects. Although Selene was not the result of a genetic experiment, her ancestors might have been. Among other things, Selene's intuition led to the invention of the

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Pionizer; she functions as Neville's Intuitionist.

Selene speculates to Denison that the para-Universe might not care if the sun explodes since then they might be able to get energy directly from our Universe. Indeed, it might even prefer that the Galactic arm explode into a quasar and would like to keep Earth from stopping the Pump before that happens. In experiments on the surface of the Moon, Denison and Selene use the Pionizer to tap another Universe and succeed. Gottstein comes upon them while the experiment is going on. Later Denison explains to Gottstein that they have tapped a Universe, which might be called an anti-para-Universe, in which the strong nuclear reaction is so weak that an entire Universe could consist of a single star. That would be a situation similar to that in our Universe before the explosion of the cosmic egg, or "cosmeg." As humanity taps the cosmeg-Universe for energy, the seepage of natural law will counteract the effect of the Electron Pump and with proper coordination leave a net zero result. The cosmeg-Universe, on the other hand, might eventually explode as the strong nuclear force leaked into it; this explosion, however, would result not in damage but in conditions under which life eventually will be possible. This sequence of actions might, in fact, explain the explosion of the cosmeg in our Universe, as some other Universe tapped it for energy.

Gottstein offers to take this information back to Earth in the form of a paper. Denison wants Lamont and Neville to be listed as co-authors. Lamont accepts (and receives appropriate honors and position, while Hallam is demoted), but Neville refuses. In a final wrapup, Gottstein brings back from Earth plans for constructing cosmeg pumps on the Moon, because they must be operated in a vacuum. Some of the cosmeg pumping will be used for energy, but most, for awhile at least, will serve to counteract the changes in field intensities introduced by the Electron Pump. Neville, however, wants to use the cosmeg pumps to convert the Moon into a stellar ship. By transferring momentum to the cosmeg-Universe, the Moon could accelerate at any convenient rate without loss of mass.

This might create problems in balancing the Electron Pumping; Denison points out, however, that this could be solved by constructing space stations with cosmeg pumps attached. But, he says, the Moon won't leave because there's no sense in it doing so. It would be more efficient to build starships that would be easier to accelerate and require less energy. Neville wants to take the Moon because of his neurosis. It is Neville's prison, Denison says, but it need not be the prison of every other Lunarite.

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Neville is adamant even when Selene, who has been waiting in another room and has heard everything, comes in and disagrees with him. Neville is outvoted decisively by the citizens of Luna City, and the novel ends with Selene asking Denison if he would be willing to contribute sperm toward her artificial insemination. A second son for her has just been approved. They end in each other's arms.

Part of the letdown in Part III is due to the speculative intensity of Part II; that is difficult to match, and by comparison Part III seems uninventive. Even the reader's natural curiosity about the fate of Estwald and the triad in which the reader has invested so much concern is unrewarded; one does not know whether the part of Estwald that is Dua ever convinces the composite Hard One that survival should not be bought at the price of destroying the other Universe. One cannot conceive of an effective way in which the reader could be returned to the para-Universe, but this does not lessen the disappointment.

Part III does not even offer the scientific credibility of Part I. The ingenuity with which Asimov rationalized the existence of plutonium-186 and the attention he lavished on the accident-plus-preparation process by which the Electron Pump was created makes the development of energy from the cosmeg-Universe seem unlikely and unconvincing. The solution is ingenious but also convenient.

Without the intrinsic narrative interests that propel Parts I and II, Asimov resorts to artificial suspense in Part III: instead of the natural mysteries that drive his best work, he offers concealed identities and information (the kind of substitute for the built-in puzzle that weakened *The Stars, Like Dust*). The only reason to conceal Denison's identity until section 6, for instance, is to paper over the lack of suspense with a contrived curiosity about who the middle-aged tourist is. For awhile the reader is tempted to believe it is—even wants it to be—Lamont. In a similar way the information that Selene is an Intuitionist is hidden from the reader (and from Denison) until section 11 even though Selene and Neville converse privately in alternating chapters, and the purpose of the Lunarite physicists is kept secret nearly to the end. Asimov tries to rationalize withholding information from the reader by establishing Neville as suspicious, even paranoid; at one point Selene chides herself for thinking of the secret purpose as "the other," rather than naming it, and she says she has been infected by Neville's chronic suspicions. All of this is weakness rather than strength.

The strengths of Part III are the descriptions of lunar life, the characterization, and the final solution to the Electron Pump prob-

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lem. Much of Part III is a guided tour of Lunar City and environs. It seems little more than padding in the midst of the more pressing concerns about the Electron Pump, but the scenes are presented so winningly and so thoroughly imagined that they rival the similar presentations in Heinlein's *The Moon Is a Harsh Mistress*. Acrobatic performances and games ("a melee in the giant gymnasium") get almost an entire section as does gliding (with the aid of argon-filled gliders attached to the shoes) on a lunar slope. Asimov describes the food (artificial and mushy; but the Lunarites, who have grown up on it, like it better than natural food), the language of contempt (Earthies, Lunies), and the gravity (hard on Earthmen, even harder on anyone who tries to return to Earth), difficulties of sleeping in one-sixth Earth gravity, and problems of elimination. More importantly, Asimov describes the social mores of the Lunarites: nudity is accepted as comfortable and natural; population is controlled by rationing the right to children; artificial insemination is the normal method of conception (although disapproved on Earth, it is allowed on the Moon for medical reasons; it is not clear whether artificial insemination is the custom among Lunarites or only between Lunarites and Earthie immigrants); and sex between Lunarite and immigrant or tourist is undesirable because of the possibility of injury to the slighter, less heavily muscled Lunarites as well as the difficulty of coordinating Earth-accustomed muscles to the Moon's gravity. This earns Asimov a pleasant reward at the end of the novel (as in *The Naked Sun*) when he brings Selene and Denison together.

As in Part I, the characters seem like real people: Denison is no hero (no doubt he functions as the author's representative: Denison's age is forty-eight; Asimov's, when he wrote the novel, was fifty-one) and Selene is no heroine. Selene's attachment to the sullen Neville seems perverse, though her later rejection of him seems correspondingly more satisfying. Neville, on the other hand, is a more classic villain (even though Asimov can probably understand his attachment to his lunar tunnels and sympathize with his desire to take the solid Moon along with him on his space travels); and Gottstein seems like a character of convenience. We long a bit for Lamont's intensity or even Bronowski's wit. Denison, however, who downplays everything, has what is always for Asimov (and for those readers who like Asimov's fiction) the saving grace of rationality. He behaves rationally, understanding the stupidity of others (the stupidity against which the gods themselves, but not Denison in his later years, contend in vain), realizing that one must make people want what is good for them rather than waste effort and time on

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trying to make them stop doing what they want to do. He accepts the weaknesses of others as readily as he admits his own. He has learned (rather like Asimov learned to give up the smartaleck quip and become lovable): at the age of twenty-five, he says, he was still such a child that he had to amuse himself by insulting a fool for no reason other than that he was a fool. Since Hallam's folly was not his fault, Denison, he admits, was the greater fool to do it. Subsequently he has learned not to insult others; and he has learned to accept help, where it is offered, without false pride and without illusions as to why it is offered. He refrains from hurting others. He wants Neville's name added to the scientific paper as co-author in order to save Neville's and Lunarite pride, and when he first kisses Selene he puts his hands behind his back; when he moves toward her at the end, he moves hesitantly.

Most of all, the solution to the scientific problem justifies everything—or almost everything. The concept of the cosmeg-Universe seems so neatly implied by the para-Universe, as the opposite end of the nuclear force spectrum, that it falls naturally into place like the last piece of the puzzle; and its existence is reinforced by the cosmological explanation it implies for the explosion of this Universe's original cosmic egg.

The entire novel plays itself out on Asimov's traditional bare stage. Few surroundings are described; even the lunar environment gets only minor references to the texture of the food and the lessened influence of gravity and the presence of Earth in the lunar sky. Asimov fiction always has had this characteristic, and perhaps it was reinforced by his first book-editor's criticism of his attempts at colorful writing in the early drafts of his second novel, *The Stars, Like Dust.* More likely, writing goes easier with limited description; and Asimov always has written swiftly. Moreover, ideas play themselves out most effectively and most clearly in isolation; and Asimov, to use the present example, is more concerned about the "idea" of lunar life than about its reality.

The important aspect of *The Gods Themselves* may not be so much what it is but what it represents. Though better written, better conceived, and even more greatly honored than earlier Asimov work, *The Gods Themselves* is not as important as half-a-dozen of those earlier books. *The Gods Themselves* came along at a time when science fiction was maturing into individual statements by individual authors; in this situation each new novel was considered mostly on its own merits rather than on its context and its contribution to

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that context. Each, therefore, might be individually superior but less important in terms of the genre of which it was a part. So it was with *The Gods Themselves*. It was important as a statement by Asimov that science still could be the distinguishing characteristic of science fiction, that the older traditions of science fiction (not always honored in their own time, even by Asimov) could be built upon rather than discarded, that science-important fiction could be recognized as contemporary. As a personal statement, the novel said that Asimov still could write serious science fiction.

Whether he will write another science-fiction novel may be irrelevant. Asimov is an important writer of our time, a recognized master of the science popularization; a polymath profligate with books in many fields and pursued by opinion seekers of all kinds on a variety of subjects; a witty, expensive, much-sought-after speaker; a commercial spokesman upon occasion; and only last a science-fiction writer, insofar as his general reputation goes. The occasions of his one hundredth and two hundredth book publications brought him considerable attention from the book world and perhaps even from the book-reading world. He has been reviewed and interviewed and profiled in and on a variety of national media. He is an institution. The delightful part of the man is that, in spite of his fame and wealth and general reputation, he has never forgotten his roots. He still considers himself a science-fiction writer and introduces himself that way. He was shaped by science fiction and by John Campbell, just as he was shaped by an upbringing in Brooklyn and his servitude in a series of candy stores from which he was liberated only late in his teens, by his precociousness, and by his father's stern ethical principles. Out of all these influences came the Asimov stories that were published in the Golden Age of the magazines and the books that were published when science fiction first was breaking into the book market. As a consequence they had influences on the genre because they led the way in critical times; they retain an importance that may exceed their basic value as literature.

If Asimov writes another *The Gods Themselves,* it will be applauded by his readers, who by this time number themselves in the millions. If he writes another novel in the *Foundation* series, it will be greeted with even greater enthusiasm. But nothing he does in the science-fiction field will enhance or detract from his accomplishments. That is not intended to discourage Asimov from writing more science fiction, to keep this analysis from being outdated or any other reason; Asimov still has the power to give pleasure through his rational brilliance, to himself as well as to others. If he writes

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more science fiction, he will write it, as he writes other books these days, for personal satisfaction.

At the end of the first volume of his autobiography, Asimov wrote that in science fiction "I had gone as far as I could. I might do things that were better than "Nightfall," *The Foundation Trilogy, I, Robot,* or *The Caves of Steel,* but surely not much better." That judgment was sound: he may have done better but not much better. What he did in his chosen field, however, was no small thing; those works, and other Asimov stories and books, helped shape science fiction just as Asimov himself was shaped by it. Whatever the intrinsic value of the science fiction he writes in the future, Asimov's continuing presence in the field has importance as a reminder not only of the past but of the way in which the past is a foundation for the present, and of the way in which the past can renew itself. Rationality still can be relevant.

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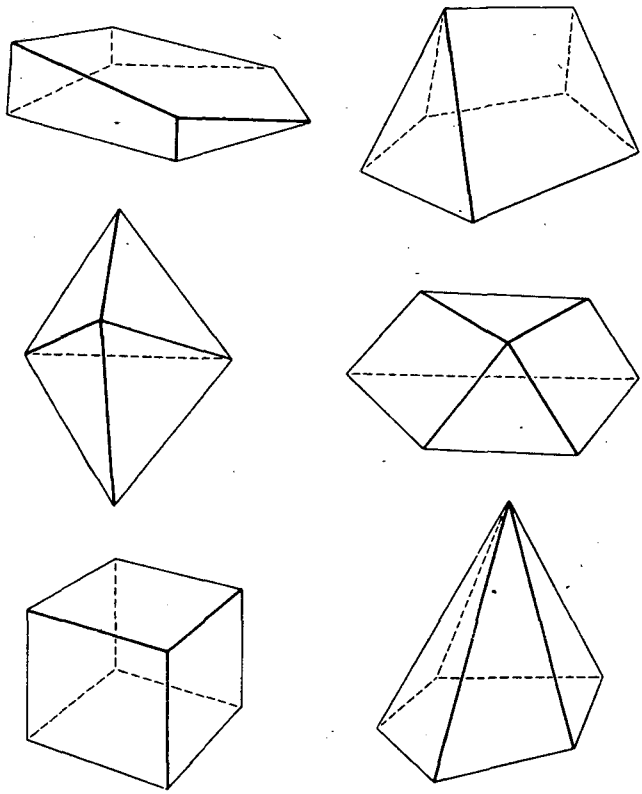
SOLUTION TO THE POLYBUGS OF TITAN. (from page 46)



It is impossible for a simple polyhedron, convex or not, to have just 7 edges. If you don't believe it, try to cut a potato into a 7-edged polyhedron! But first, let's prove that polyhedrons can have any number of corners, or any number of faces, greater than 3.

A tetrahedron has 4 faces. Slice off a corner and you produce a fifth face. Slice off another corner and you add a sixth face. By cutting off more corners you can form a convex polyhedron with any number of faces greater than 3.

A tetrahedron has 4 corners. Think of it as a pyramid with a triangular base. Change the base to a square and you have a pyramid resembling the Great Pyramid of Egypt. It has 5 corners. Change

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the base to a pentagon and you get 6 corners. By successive additions of sides to the base you can make a pyramid with any number of corners greater than 3.

The edges are more complicated to analyze. There is insufficient space for a formal proof that 7 edges are impossible, but here is one way to go about it. A well known formula, by the famous Swiss mathematician Leonard Euler, says that for any simple polyhedron, with simple polygon faces, $V - E + F = 2$. V stands for vertexes (corners), E for edges, and F for faces.

Because at least 3 edges must meet at every corner, and at least 3 edges must surround every face, it is not hard to show that two inequalities must hold:

$3V$ is equal to or less than $2E$.

$3F$ is equal to or less than $2E$.

Let $E = 6$. There is only one way to plug two other positive integers into Euler's formula and simultaneously satisfy the two inequalities: $V = 4$, $E = 6$, and $F = 4$. We have described the structure of the tetrahedron, the only polyhedron with four faces.

Let $E = 8$. Again there is only one solution in positive integers that satisfies the three formulas: $V = 5$, $E = 8$, and $F = 5$. We have described the Great Pyramid. Let $E = 7$. A little experimentation will convince you there are no integral values for V and F that will satisfy Euler's equation and the two inequalities. In other words, no simple polyhedron has just seven edges.

Another way to look at the problem is to imagine a tetrahedron altered so it acquires a fifth corner. There is no way to do this without causing the number of edges to jump from 6 to 8. Above 8, a convex polyhedron can have any number of edges.

Further inspection of Titan's polybugs showed that there were just seven varieties of hexahedra—convex polyhedra with 6 faces. Six are shown in the picture. They are topologically (or combinatorially) distinct in the following sense. It is impossible to deform the skeleton (structure of edges) of one to the skeleton of another by varying the lengths of edges and the angles between them. A cube, for example, is combinatorially identical with a 4-sided pyramid that has had its top corner sliced off.

There is a seventh convex hexahedron not shown. Can you sketch its picture before turning to page 118?

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FALSE SCENT
by Rick Raphael
art: Marc Schirmeister

Mr. Raphael reports that he's just retired from his fourth career—at age 60—to settle in Minnesota and to return to his true love: writing. His novel, The Defector, *was just published by Doubleday; another,* Deep Strike, *will be out soon from the same publisher. The author is working on a third novel, and relaxes with skiing in winter and tennis in the summer.*

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While Tony D'Augustino, a capo of the Morelli family, was punching a .38 caliber hole in Gus "The Gut" Castillo's pre-digested manicotti in a Brooklyn NY restaurant, more than 500, including His Honor the Mayor, were watching and listening in person to D'Augustino's semi-literate address to 500 luncheon guests at an Italian-American Businessman's Association meeting in San Francisco.

Then Marty "The Mouth" Marcellino, a button man for the Morellis, got himself DWI'd and tossed into the drunk cooler in Paramus NJ at the precise moment he was positively identified as the man backing out of the Third National Bank of Cicero IL, carrying both a gun and a dispatch case containing about a half million in bills of large denominations. During the next six weeks there were five similar felonies, each committed by some member of the Morelli mob and in each case the miscreant was eyeballed by reputable persons hundreds or more miles from the scene.

It wasn't until a hard-digging FBI agent learned that each of the alleged felons had made a European trip within the past year or so—including a lengthy stopover in Vienna—that it became an Immigration case. Each had spent some time at the clinic of the famous Dr. Heinrich Wilhelm Gurtzenheimer, the world's foremost, richest, and greediest surgeon and recognized authority on cloning. Some fast police work nailed both clone and mobster in four of the earlier cases and they were held incommunicado.

The problem was how to identify who was the real felon and who was the clone. There was a lengthy 30-day process of complicated and expensive blood and genetic chain analysis. Since Austria had no laws prohibiting the manufacture of clones, the good Doctor Gurtzenheimer was breaking no laws. But if his clones were entering the country under false passports and other identification it was an Immigration case.

Harking back to his salad days as a young Border Patrolman, Chief Immigration Inspector Charles Malloy remembered how successful the Narcs had been using dogs to sniff out as little as three grains of marijuana in a person's possession.

While State Department officials fainted at the thought of holding everyone entering the United States in quarantine for 30 days for clone tests, Malloy thought, "What the hell. It worked once, maybe it'll work again."

The captured clones and their human counterparts were brought in pairs into a room. In each case, the dog went first to the clone and then maybe turned to the human. When the man was brought

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in alone, the dogs virtually ignored him.

"I'm past retirement age anyway," Malloy mused, "so why not?"

Next week a dog was lying comfortably at the foot of the counter of every immigration entry point in the United States. On the fifth day, a mutt of mixed ancestry named Orville rose from his place at the Miami International Airport Immigration check line and walked over to a man being questioned. Orville sniffed lengthily at the man's crotch and then looked up at the Immigration Service agent and woofed.

Two men in plainclothes appeared at either side of the man and escorted him off.

The scene was repeated three days later in Kennedy International Airport in New York. Both men were slapped in quarantine and run through the test routine. Both proved to be clones.

Later, interviewed by the press, Malloy was again asked how the dogs could smell out the clones.

"I'll be damned if I know," Malloy responded truthfully. "They just do."

"It must be that the clones smell different to the dogs," a reporter mused. "I wonder what it is?"

"Probably some sort of Eau de Clone," Malloy ventured.

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THE HOTTER FLASH

by J.O. Jeppson

art: Tim Kirk

Dr. Jeppson keeps claiming that the luncheon club of which she writes is wholly fictional—but **we** *know better, don't we?*

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A strangely placid atmosphere prevailed at Pshrinks Anonymous. In the midtown hotel's sub-basement dining room, there was such an unnatural calm that, for once, the official name of the weekly luncheon club—The Psychoanalytic Alliance—seemed apt.

Nobody's definition of deep analysis was in dispute. Insidiously possible entanglements with outer space—alliterative or otherwise—were not even mentioned. Only a brief flurry of diatribes erupted against various editors who had rejected manuscripts produced by various Pshrinks fancying themselves to be gifted with literary talent. There was even a dearth of intriguing case material and not one good argument over theory.

Conversationally uncontroversial meetings like this one were, admittedly, rare. Not uncoincidentally, the Oldest Member was late.

One of the middle-aged Eclectics poked at his Chicken Curry Climacteric and asked, "Where's the chutney? Why is the food so bland?"

"Today all interactions including gustatory ones have been, as we say in the trade, conflict-free," said a neo-Freudian whose forthcoming paper on the subject was supposed to be long and definitive, not that there was any other kind.

The door opened and the Oldest Member strode in, his white moustache waxed to fine points that tilted upward. He called for his lunch, surveyed his colleagues with his well-known Freudianly penetrating gaze, pulled a cigar from his breast pocket, and said as he twirled it under his nose:

"You all look bored, which means that superegos are rigid, ids are frustrated, and the no-smoking rule is still in force."

A chorus of cigar-addicted compatriots muttered assent.

"I think it's time to vote again on the rule," said the Oldest Member, raising his voice. Then he glanced sideways at the Pshrink sitting to his left. "How about that?" he said to her. "Are you going to fight for your rule?"

There was no answer.

"Hey! I realize you have a negative transferential reaction to me and my cigar but . . ."

"What?" said the Interpersonal, blinking at him as if she had not noticed his entrance, much less his call to battle. "I'm sorry. I was preoccupied in thinking about an unusual case."

The Oldest Member pursed his lips. "I want a vote on smoking. Will this case report take long?"

"Oh no. I will be forced to be discretely brief, because this report is about an afflicted relative."

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"Indeed. Brief, you say?" said the Oldest Member, sniffing his cigar voluptuously.

"I promise," said the Interpersonal. "I would not even mention the case except that I'm so upset about it and" —she smiled shyly at the Oldest Member— "you are always so helpful in promoting and analyzing the emotional catharsis of a fellow Pshrink."

Although he had winced when a female Pshrink called herself a "fellow," the Oldest Member nodded, expanded his chest, and then beamed happily at her. "You may be assured that this will remain indubitably confidential. We of P.A. are always eager to help with members' families, so often psychoanalytically neglected. I will be only too glad to interview your unfortunate relative . . ."

"Unfortunate is not exactly the operative word," said the Interpersonal, "although my Great-aunt Efferna died a few years ago. She was in her eighties at the time and went out smiling, after saying that she was pleased to be accomplishing genuine transcendence. The family was perturbed that she returned to her previous mystic tendencies on her deathbed, but on the whole they were relieved."

"I don't understand. Why is this a problem to you now?" said the Oldest Member, putting his cigar back into his breast pocket and popping a Shrimp Sigmund past his moustache.

"Perhaps I'd better tell the whole story," she said as the rest of the members groaned and called for the next course, Torte Nectarine a la Necromania.

My older relatives [said the Interpersonal] constituted a large assortment of diverse personages, none of whom ever flipped their lids in any certifiable way, but who represented a psychological challenge to any child who wanted to understand people. In fact, if a kid didn't figure out these relatives early in life, he or she was likely to become one of them, which is a possible explanation of how I got interested in becoming a Pshrink.

When I was growing up, this Efferna was my mother's sole remaining aunt, the spoiled youngest of many siblings in a family still psychodynamically attached to Victorian times. Efferna, their last bloom, was only ten years older than my own mother, but she obviously belonged to another epoch, which makes it even stranger that she didn't go backward instead of forward.

["Why have you stopped?" asked a Kleinian. "And what do you mean by that last sentence?"]

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["It's embarrassing," said the Interpersonal.]
["Come now," said the Oldest Member. "Persevere."]

First I must describe my great-aunt. In youth she was a tiny woman, well-shaped but unable to demonstrate sex-appeal because she seemed so maidenly high-strung, with enormous blue eyes staring in a bewildered way at a world that persisted in appalling her. No doubt her first marriage appalled her, because when widowhood came early, she seemed relieved.

The rest of the family had its turn to be appalled, because Efferna achieved widowhood in the depths of the Great Depression, when jobs were not available, especially not to a flighty lady with no work experience. Since her husband had died broke and there were no children to help, Efferna's many nieces and nephews passed her around.

She always stayed with us from Thanksgiving through New Year's, when her niece (my mother) would be trying to cope with the unluckily central location of our family, which attracted relatives from other geographical points to our house as a meeting place. Efferna, who talked and wrote with a profusion of capitals and italics, believed that she was a great asset during Major Holidays when the children were Home from School.

When I was young I thought Efferna was an asset, too, although some years later I realized that perhaps she was inclined to be a trial, as I overheard my mother remark. The problem was not that she thought she was a great cook—she was—or that she wrote poetry and read reams of it at each holiday to whatever herd of relatives and their friends she could corral in whatever living room she was currently inhabiting.

As my father was heard to say many times, the main problem was that Efferna was dangerously imaginative. This was rapidly compounded by what my mother and Efferna's other nieces (often in solemn conclave) referred to as "the change."

I was too young to know what this meant, but Efferna explained it to me in dubiously graphic detail when I incautiously asked her what she was changing into. Since I would listen, I was usually the recipient of her many vivid narrations; and according to my own analysis, it probably took me years to recover from the multiple misconceptions about life that Efferna implanted . . .

["We are not interested in your analysis," said an Adlerian grumpily. "Besides, it's against the club rules."]

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["Sorry about that," said the Interpersonal.]

At any rate, Efferna went into menopause with a bang. Literally. She came back to our house one day announcing that a large Studebaker had *withered* her youth by backfiring just as she was passing behind it on her way from the public library, where she spent most of her time reading suspect fiction like the wilder products of H.G. Wells. The Studebaker's blast had been so loud that she had felt her insides shrivel and she said she would Never Be The Same Again.

My mother told my father that Efferna had been drying up—menstrually speaking—for some time, but the fact remained that Efferna never was the same again. Her periods stopped completely; and, like eighty percent of all human females, she began to suffer from hot flashes. Perhaps "suffer" is not the correct word. While "enjoy" might be too strong, it's on the right track.

"Hand me my fan, dear," she would say as she loosened her neckline and flapped her arms like a triumphant hen. She could never remember the names of any of her grand-nieces, but that had nothing to do with premature senility (Efferna had every one of her unusual marbles). The entire family knew that Efferna had always been too preoccupied with what she called Higher Planes Of Thought to be able to concentrate on practical reality.

I would find her special fan, a large black object passed down from generation to generation, that opened to a sparkle of exotic flowers traced in gilt and outlined by thin strips of mother-of-pearl. Great-aunt Efferna told me that the fan was essential for ladies passing through "the change," and eventually wore it dangling on a black silk cord across her bosom in readiness for the next moment she was struck by a hot flash.

"I'm having another one," she would say possessively, fanning herself as she turned slightly pink and moist. "Let me tell you about the possibility of astral voyages during *unusual* psychic states." She had begun a fervent study of several mystic books considered borderline even in the thirties . . .

["You're such a die-hard rationalist," said one of the younger Interpersonals. "How did someone like that get in your family?"]

["It would be more appropriate to ask how my family managed to get someone like me," said the Interpersonal.]

. . . but no one paid any attention to her except me, and I was

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interested only because I'd been given a new Oz book for my seventh birthday and thought that astral voyages might be one way to get there. I soon learned, however, that Efferna thought of astral voyages as ways of getting out-of-the-body trips in the here and now, so one day between Christmas and New Year's during that hot flash winter, I decided to pin her down.

"Aunt Ef, where would you go on an astral voyage?"

She blotted her forehead with an embroidered handkerchief and fanned harder. The mother-of-pearl blended with the gilt and black to become a hypnotic pattern in the air.

"I haven't decided. I could go over and assassinate that Perfectly Awful man who is *ruining* Europe, but I don't speak German, and I really think I ought to give him a Piece Of My Mind first. Besides, I'm not at all Certain about what's feasible during such a voyage."

"What do you think could be possible?"

"Perhaps nothing but *observation*. I should not underestimate the Powers of Observation, of course; but Being Out of the Body may well be an *unnerving* experience, especially if one is helpless to change anything, being not present in physical form."

"But how can one travel anywhere without a body?" I would ask, for the umpteenth time.

"You are not old enough to understand," said Efferna, duplicating the refrain I heard from every relative older than I was.

New Year's Eve came, a particularly balmy night for December thirty-first. At the inevitable large party taking over our house like a disease, Efferna startled everyone by refusing to read her poetry.

"I've torn most of it up. I'm starting over," she announced. Plucking a small bottle of champagne from a cooler, she waved vaguely to the other guests and ascended the staircase, over which several of us in the youngest generation were leaning to spy on the grownups. Our great-aunt swept past us and disappeared into the spare room, where she began to chant loudly.

"She's into Sanskrit again," said my father.

"Go to bed, children," said our mothers.

My bed was next to the wall of the spare room, so it was difficult to sleep with a lively and only slightly middle-aged great-aunt chanting on the other side. Soon, however, the sound of the grownups downstairs toasting the New Year and singing "Auld Lang Syne" drowned out Efferna, and I went to sleep.

I woke up an hour later with the moonlight streaming across my face. The cousins staying over in my room were asleep, and I couldn't help thinking it was a grand night for an astral voyage. I tiptoed

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out of my room, peered over the stair at the grownups, all quietly playing bridge, and went to Efferna's room to find out if she'd made it.

Her room was empty. So was the bathroom. I looked through the upstairs but she and her fan were not there, although her clothes were hanging over a chair and her frilly negligee was at the foot of the bed. In the old mattress was an indentation as perfect as if Efferna were still there and had not dented down or rumpled the side of the bed in getting out.

Suddenly I was positive that she actually was still there but I couldn't see her. I decided that she'd achieved Out of the Body travel with the interesting complication of leaving her body behind in an invisible state. Quietly, I moved to the bed and stretched out my hand to touch her.

She wasn't there. The astral voyage theory hadn't scared me, but the sudden dissolution of it gave me a fright. I ran back to my room and woke up my oldest cousin.

"You idiot," she said predictably after hearing my story. "Having hot flashes is probably enough to push a silly old woman around the bend. She's probably been taken off to the booby hatch, which is okay by me because I won't have to listen to any more of that awful poetry or get embarrassed the way I was when she recited it to my boyfriend just as we were trying to leave for the seventh-grade dance. . . ."

I went downstairs and got onto my father's lap.

"Have you sent Great-aunt Efferna to the booby hatch?"

"Good grief!" said my mother.

"Should I?" asked my father.

"I don't think so," I said, remembering that I had overheard my parents whispering about something called a psychiatric consultation. "But she's disappeared."

"Nonsense," said my mother. "She's in her room."

"She's not."

My father sighed. He was, I realize now, only in his early thirties, and he didn't like any kind of poetry except Rudyard Kipling. "You've both forgotton the back staircase."

So I had. It was usually blocked up with packages and cartons my mother hid in there at the last minute before guests arrived.

"And there's a full moon!" I said. My father winked at me, patted me on the behind, and sent me up to bed somehow convinced that my great-aunt would naturally want to escape outdoors to look directly at the full moon, especially on a warm New Year's eve.

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I went upstairs, wondered if perhaps Efferna might have had a voyage that was literally astral, or at least lunar. I peeked into her room, but there she was, sound asleep and clutching her black fan. I was disappointed.

I never caught her disappearing again, but later that year when she was staying with other relatives, she was taken to see a psychiatrist because she would unaccountably leave for short periods and return talking nonsense. Family discussion began about the inevitability of sending great-aunt for in-patient treatment, but quite suddenly she cleared up.

Her hot flashes stopped, practicality descended to quench her mysticism, and she found herself a husband, a rather gently dotty painter who achieved his own practicality during the war years by helping to build war planes while Efferna planted Victory gardens.

It was not until she was quite elderly that I learned about what happened to her during her brief months of menopausal vasomotor irregularity. At first she said she wanted to tell me because I'm a Pshrink and it might be useful someday in case it happened to anyone else, who'd then be in danger of being diagnosed crazy.

["I hope you're not going to try to persuade us that she actually went on astral voyages," said the Oldest Member.]

["Aren't you?" asked a Jungian plaintively.]

Great-aunt Efferna stated definitely that she had not gone on astral voyages during her hot flashes. "Balderdash," she said with a snort, having become much more bombastically assertive in old age. "Even Wells would not have approved of popping around the world totally Out of the Body, *interfering* in the lives of people on this planet that you know or might meet. It is not Proper."

"On this planet? You don't mean that you think you went to another planet?"

"What would I want to do that for? Space exploration may be important, and I'm glad I lived to see it now, but it's not as important as—but perhaps I'd better not tell you. I wouldn't want to Interfere with the Future any more than . . ."

"Do what? With what?"

"I suppose you break into your patients' sentences like that," she said with a sniff, even more ominous than the snort. "Now as I was saying before I was so Rudely Interrupted . . ."

I relaxed. She always said that when the moment of annoyance had passed.

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". . . I was talking about the Future. Only now it's getting to be the present. My, I have enjoyed myself, though."

I stared at her. She certainly had looked happy during her post-menopausal years. Throughout the vicissitudes of personal aging in a troubled world, Efferna had remained sane, helpful, and so unremittingly cheerful that my parents often whispered about what a trial it was. She had also gone back to writing poetry, or rather gone on, for her post-menopausal verse was humorous, sold well, and gained her some notoriety.

"Aunt Ef, are you telling me that during your hot flashes you think you went bodily into the future?"

"With my fan. And only when I was strictly alone. It Would Not Do to disappear when anyone could see it happen. It's odd, however, that nowadays I don't seem to have so many *inhibitions* and I would enjoy seeing the reactions of other people, but of course it's too late. What a pity that I had such a *short* menopause."

"You think that you waved your fan . . ."

"Oh, vigorously, my dear, quite *vigorously*. It took practice. And one could never count on knowing exactly when a hot flash would come. That's why I had to start wearing the fan all the time so I wouldn't mislay it." She gazed complacently at her glass-doored cabinet, where the open fan had always reposed post-menopausally in dust-free spangled splendor.

"How could a fan —"

"Put anyone into the future?" Efferna smiled. "Perhaps it couldn't do it for just *anyone*. This is a *very* old fan, and it has presumably accumulated a great deal of Psychic Energy which, when combined at a certain speed with the Aura given off by a *hotter* flash . . ."

"Now, Aunt Ef," I said reprovingly, as if I had somehow become the elder. Pshrinks tend to get that way, I've noticed, especially with friends and family. "I don't imagine that your hot flashes could have been hotter than anyone else's. My gynecological experience shows . . ."

"Pish!" said Aunt Efferna with another snort. "Doctors don't know anything. I lived through it, and I know that my hot flashes certainly were hotter. Perhaps" —she looked slyly at me— "it runs in our family."

"I wouldn't know," I said. "I'm not old enough, and my mother had very mild ones."

"Poor soul," said Efferna. "Perhaps it skips generations. I wouldn't have missed it for anything."

"The hot flashes?"

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"The trips into the future."

"But what happened when you went into the future?" I cried, forgetting to insert the words "think you" between the "you" and the "went," as every good Pshrink must do in putting questions to people of doubtful sanity.

"At first I just observed. I glanced at newspapers, looked at television—that sort of thing."

"Back in the thirties you knew that television would be omnipresent now?"

"Yes. You'll have to admit that I made rather shrewd investments in the stock market at certain times."

It was well-known in the family that Great-aunt Efferna had indeed become a financial wizard in her mature years, and was now rolling in it.

"You might have told the rest of us!"

"I tried to, but no one would listen to what I thought were *good* investments. Furthermore, I was terribly tempted to try to nip television In The Bud, but I couldn't think of what to do about it that wouldn't also change other things I didn't *want* changed."

I, of course, was terribly tempted to ask her what things she didn't want changed; but I didn't wish to seem to be taking the whole thing seriously. I had my professional reputation as a Pshrink to think of, even with dotty relatives. I thought of something else to ask that would catch her in fabrication.

"Didn't people notice you, Aunt Ef?"

"They didn't at first, although I was definitely there in the flesh and could perform *certain actions*. I was not an Out of the Body Projection, but somehow no one would see me very well. They would step aside but not really *notice* me. At first I was offended, but then I decided I was simply not in *tune* with the future universe because I was from their past."

"That must have been frustrating," I said sarcastically.

"Not for long. I figured out that since it was all a matter of the Proper Vibrations, I learned to tune in at certain times so that I could be seen and heard."

I remembered that Efferna had been heavily into mystic vibrations in her day. "What years did you go to, then? What did you see?"

"Oh, I wouldn't want to spoil it for you by going into details. Besides, it wasn't so much what I saw as what I eventually did."

"You mean you think that you made changes?"

"With, I suspect, far-reaching consequences. After all, it was an

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important international meeting, and although I was in my nightgown when I appeared, it was my *best* one, and they seemed attentive when I gave them a Piece of My Mind."

"But what did you say?"

She acted as if she had not heard me. Humming to herself, she opened the cabinet and took out the fan.

"Aunt Ef . . ."

Fanning herself gently, she looked at me as if scrutinizing the expression on my face. "Do you believe me?"

Much as I loved Great-aunt Efferna, I couldn't lie to her. "I don't know," I said.

"Good. Always keep an open mind and stick to truth. It may help in the forthcoming world upheaval—but I don't want to say any more. You, or someone you'd tell it to, might try to change what I've already changed and that would confuse things. You see, I am convinced that I have *improved* matters, although I won't live to see the changes I made in the future."

"You mean you're talking about what *hasn't* happened *yet?"* I said, lapsing into italics.

"That is correct, dear niece-once-removed."

"I think you mean grand-niece."

"To be sure," she said, fanning a little harder. "You see, it would be Most Unpleasant to encounter one's past self, don't you think? I know that the future I visited is Yet To Come, and by then I will be *safely* dead."

"Safely?"

Suddenly she handed me her fan and said, "Take this, dear. You may find it—*useful.*"

"But Aunt Ef, I want to know what you *did*!"

"Try to enjoy life," said Great-aunt Efferna, and then she began to laugh.

The Oldest Member pushed aside his coffee cup, grabbed one end of his moustache for support, and said, "That's one of the most incomplete case histories I have ever heard!"

The Interpersonal seemed to be staring off into an unknown distance.

"Were you able to estimate what year your great-aunt might have appeared?" asked a rather unsuccessful Pshrink, who always thought that his patients were telling the truth.

The Interpersonal shook her head.

The Oldest Member peered closer at her, his frown metamor-

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phosing into a look of professional concern. "What's the matter? Are you upset? It's not your fault that your great-aunt was so clearly neurotic."

"I know, but there are complications," said the Interpersonal.

"Let me help," said the Oldest Member, still exercising his consultative powers and taking a deep breath as if he meant to go on for some time. "However sad it was that your family neglected to obtain prolonged treatment for your disturbed relative—with a reliable Pshrink—I can assure you that the whole case was probably just a simple problem of reorganizing the libido . . ."

"Have you noticed," interrupted one of his colleagues, also addicted to cigars, "that lunch is over and we've never gotten around to voting on the no-smoking rule?"

The Oldest Member expelled his breath forcefully, causing his moustache to flare out like an angry porcupine. "Now see here! I think . . ."

"Wait," said the Interpersonal. "There really is a genuine on-going problem." Rummaging in her purse, she extracted a long black fan. When she opened it, the mother-of-pearl and painted gilt flowers glistened.

"A problem?" said the Oldest Member, raising his eyebrows.

"But don't worry, I've resigned myself to solving it now that I've started getting hot flashes," said the Interpersonal cheerfully as she fanned herself—with vigor.

AN ODE TO PAN-GALACTIC SPACEWAYS, INC.

When you travel by stellar-warp drive,
You will cruise, fully safe and alive,
  Without worry or tension
  Through an extra dimension—
But your luggage may never arrive.

—Barbara S. Ryden

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IMPROBABLE BESTIARY: The Unicorn

Now, once there was a unicorn, and she was very sad.
Her forehead bore a single horn and that was all she had.
She knew the gnu and caribou
Have horns that come in sets of *two*
But poor old unicorns make do
With just one horn. Too bad!

And then she met a scientist, a young and handsome scientist
Who said to her: "I'll change you into anything you say.
You want two horns? Why, that's a breeze!
I'll make you any shape you please!
And all I have to do is recombine your DNA."

He figured out some calculus, a secant and a sine.
He multiplied the answer by the cubic root of nine.
And then her horn turned green and blue
And changed, transmogrified, and grew
Until at last it split in TWO!
"*Two* horns!" she gasped. "That's fine!"

"You're welcome," said the scientist (A Nobel Prize geneticist).
"I'm glad my calculations worked according to the plan.
And if there's more that you require—
Or anything that you desire—
Just let me know, and I'll help out in any way I can."

The one-horned unicorns came round, too numerous by half.
"A *two*-horned unicorn!" they scoffed. "You look like a giraffe!"
But then, when she began to speak
And said: "I'm really quite unique . . ."
They sneered. "*The word for you is* FREAK!"
And they began to laugh . . .

"Don't worry," said the scientist. (Deep down, he was a realist.)
"I'll make you look the same as them as quickly as can be."
"Not bloody likely, chum!" she cried.
"I'm *not* like them!" she said with pride.

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"Who wants to be like everybody else?" she said. "NOT ME!"

The one-horned unicorns all laughed at her and
nudged and winked,
And two days later one-horned unicorns became extinct.
Our two-horned friend is still unique;
She rides the plains of Mozambique
And lives with a romantic sheik
Who feeds her sweetmeats every week
And never, *never* calls her "freak",
And every night they dance.
And her scientist friend did all right in the end:
He received twelve government grants.

—F. Gwynplaine MacIntyre

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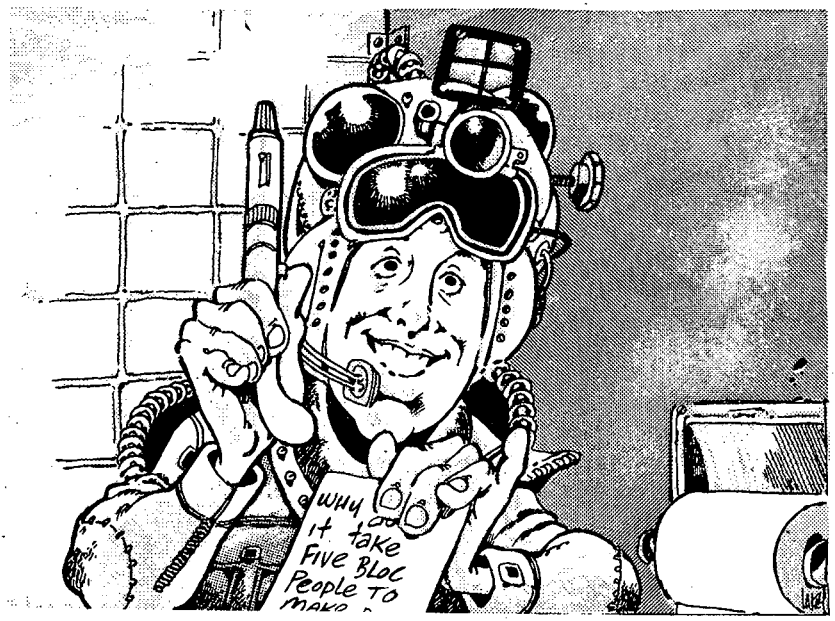
GRAFFITI
by Gary Alexander
art: John Lakey



Mr. Alexander is 39, married, and has three daughters—3, 7, and 18. The family is in the sporadic process of restoring an older home in Seattle. His hobbies include gardening, general tinkering, and entertaining the neighbors by throwing violent tantrums at the mailbox when a rejected manuscript is returned. He also reports that he's given up racing armadillos, having discovered that they become fiesty and anti-social when saddled.

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Graffiti. *Graffiti.* A difference? Ask Harv Glasingame. Seventeen years in the janitorial engineering profession and he's seen it all.

The former he can deal with, and it can be fun, occasionally intelligent, and once in a great while, almost iridescent. Jingles, slogans, anatomical sketches, philosophical fluff. For a good time, call ——. Grease pencil; No. 2 lead; ball-point; and, in his present area of responsibility, the sixteenth through twentieth floors of the high-rent, chrome and glass and chintz Winston Building, felt-tip pen. Very big, felt-tip; the staple of distracted attorneys, tense middle-managers, and alienated clerks.

Not bad material, either. Lots of abstract doodles and clipped iambic pentameter. Much more interesting to clean off than formless, accidental floor spills: soil that can be read.

Then there's *graffiti.* It makes Harv's teeth hurt to think about it. Excrement of mean, tiny minds, he thinks; a striving for immortality expressed with pocketknives, fingernail clippers, and judging from some of the penmanship, perhaps incisors. Four-letter words, swastikas, the whole gamut of cerebral sludge. And it's usually indelible. Maintenance must be summoned to assault it with sandpaper and alkyd enamel. Harv, who has plenty of time to read on the job, discerns and judges. Without exception, he has found, material recorded with permanence in mind deserves rock-bottom marks.

But this new stuff that he has been finding for the past week in the center stall of the nineteenth floor men's room seems to be both graffiti and *graffiti.* Looks like it's done with a black marker pen but it resists all cleansers, and when he took it down to bare metal in one spot, he discovered that the ink penetrated the sheet steel itself, as if it were a sponge. Crazy, weird, irrational stuff, like tonight's:

THE ALLIANCE IS AN IMPOTENT SHAM, ITS PRINCIPAL EXPORT BEING STUPIDITY AND TREACHERY. SILICATE WAFER INDUSTRY IN CHAOS. GENETIC MANAGEMENT PROGRAM ERODING: A GENERATION OF MONGOLOIDS WILL SURELY FOLLOW. NO LONGER CAPABLE OF GOVERNING WITHOUT GUIDANCE.

Harv's arms are leaden from scrubbing, yet someone had erased last night's dribble and replaced it with this, without leaving even a steel-wool mark. This has been the pattern all week. He recalls the previous dementia:

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THE BLOC IS A VIRULENT DISEASE. REMEMBER YOUR SATURN ORBITAL DISASTER? TECHNOLOGICAL INCOMPETENCE ENDANGERS ALL ITS CITIZENS. THE BLOC IS NOT QUALIFIED TO RULE IN AN ERA BEYOND THE BRONZE AGE.

Harv Blasingame concedes defeat on the tan enamel. He places the blackboard he requisitioned from Storage over the urinals. It works in taverns and restaurants, so why not?

He finishes up and clocks out. Maybe, like his wife says, he has been taking this too seriously. It's not *your* damn building. You clean floors and carpeting, and empty trash. They're not paying you enough to worry about the work of some head case. Seventeen years on graveyard shift, she adds *again*, and you're turning into a vampire. No perspective. Relax, relax.

The following night, Harv begins at Twenty and works down, instead of his usual vice-versa. No time to stake it out, but he may get lucky. Which he does.

He enters the john on Nineteen and spots a young guy in a silver jumpsuit and a Lucite helmet in the center stall. He's obliterating last night's graffiti with a small tube that emits a beam of light. The light beam is doing the job, and Harv wonders for an instant if he can get one; would be terrific for coffee stains on Herculon. He is so intent he does not notice Harv.

"Excuse me." Small kid, kind of pale, about college age. That outfit! Must have just left a disco. He reads *People* Magazine and has seen stranger disco garb than that.

But no answer. The guy has cleaned the wall completely and begins writing with another small tube:

THE BLOC'S MONUMENTAL BLUNDER IN —

Harv shoves the stall door gently against the vandal. "Excuse me."

The boy finally acknowledges Harv. He turns and says with a cold, tight smile, "Interference in the War means automatic forfeiture, per the Khartoum Accords. Sending you will be the Bloc's last mistake."

Harv raises his mop to port arms. "I realize this building has a twenty-four hour, seven-day policy, but you'd damn well better be a tenant."

The intruder sizes up Harv with obvious contempt. "Yes, the Bloc tacticians are capable of anything, but *you?*"

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Harv is stout, stolid, slow to anger, but is an advocate of the territorial imperative. And he doesn't much care for some snot-nosed punk making light of him. "I don't know anything about your Bloc. I work for Winston Properties Inc., and I can have the cops over here in about three minutes."

The kid becomes even paler. "You were not dispatched by the enemy? You are of this time?"

Harv tightens his grip on the mop handle. "Time? I punch out at six, but what does that have to do with anything? We're talking about defacing private property."

The intruder is trembling, near tears. "But Conflict Central assured us that this locus was absolutely neutral, that there would be no interference from the natives."

Natives? What am I, some aborigine in a loin cloth? Goddamn college kids and their fraternity stunts, never did an honest day's work in their goddamn lives, and they look down on a working man. Harv prods the punk with his mop head, and the punk collapses onto the stool.

"Better do some talking. Or maybe you'd prefer a night in the slammer? That might shape up your attitude a little."

He explains, "I am from the future, four centuries hence. You have interrupted me at a critical instant in the prosecution of World War XIII."

Harv smirks. "In a restroom scribbling, for all I know, smut on a wall? Sounds more like you're a draft dodger."

The kid shakes his head and raises his hands. "Please! While wars in my time are as frequent as in yours, we no longer use physically destructive weapons. We finally learned our lesson after the Holocaust of 2216. Two billion dead. Unimaginable ecological damage. Since then, the trait of human violence has been genetically eliminated. However, other negative emotions prevail. Envy, ambition—"

"Pride, avarice?"

"Yes! You do understand?"

The vandal starts to rise but Harv pushes him back down with the mop. Traces of acrylic wax on the mop head smudge the gleaming jumpsuit. Tough cookies! Must be a fraternity stunt. Must be what they do these days instead of panty raids.

"Sure, I understand," Harv says. "Very sensible. Go on."

"So we settle our grievances by innuendo, insult, and accusation. One party from each side is chosen to wage warfare. My statements and those of my opponent are evaluated by Conflict Central. Our

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last World War occurred at the turn of the last century. We did well, acquiring Iceland, a mining cartel in the asteroid belt, and some rather attractive tariffs."

"Just you and him? That must really trim down the defense budget."

The juvenile-delinquent–frat-rat–disco-hound sighs. "Yes, but West Point can be very lonely when you're the only cadet."

Odd look on his face. Harv wonders if kids still gobble LSD. That's the logical answer, but this squirt's pupils aren't flexing.

"Yeah, well, I have my own problems. If this stuff keeps showing up here, we're going to get complaints. It's mostly attorneys and importers up here on this floor. Dirty words they can handle, but you use such big letters. They don't want their clients coming in and thinking this is some sort of low-class building. Can't you fight your little war with pictures of naked girls or something? Better, if you have to use a men's room for your games, can't you go back to your own time and find a bus station or an airport or whatever?" Humor him, Harv thinks. They say when a person goes bananas for good, it takes six people to hold him down until the boys with white suits and butterfly nets arrive.

"No, no, no! Neutrality is essential; and there is no place on Earth or off-planet, in my time that is. Everything is either Bloc or Alliance. Time travel was developed just for this purpose."

Harv withdraws his lance. The poor slob must be a freshman. If he returns late, they'll paddle him from the front door to his room. But instead of leaving, the kid lunges up and locks the stall door.

"Hey!"

No response, so Harv scrambles to an adjacent stall and chins himself to the top of the partition. It's empty; the bastard's gone. He reads:

— DISTRIBUTING SOY AND COAL EXTRACTS IN THE SIAM ZONE HAS CAUSED AN EPIDEMIC OF PELLAGRA. HOLOGRAPHIC GOVERNING OF MINOR PROVINCES HAS PROVED ABSURD. HOW CAN A CITIZEN RELATE TO ETHER? A RATIONAL PERSON WILL WELCOME PROPER LEADERSHIP.

And how did he do that? Must be a physics major. Harv is ready the next night, checking the lavatory every ten minutes or so. He catches another vandal at work. This one could be a twin of the other, except that his disco fruit-suit is gold.

"Don't tell me. You're the Bloc guy."

He has already erased the Alliance message, replacing it with:

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THE IBERIAN REVOLT WILL REPEAT ITSELF, BECAUSE OF ALLIANCE INEPTITUDE. UNEMPLOYMENT IN BRAZILTINIA IS AT AN INTOLERABLE LEVEL. YOUR ANTARCTIC MINING OPERATION IS IRRESPONSIBLE. FURTHER MELTING OF THE ICE CAP WILL JEOPARDIZE SOME OF YOUR COASTAL PROVINCES, AS WELL AS OURS.

The intruder gulps but does not speak.

"Cat got your tongue? Gimme that."

Harv takes the writing tube from him, places it on the floor, and stomps on it until it's slivers and chips. When he looks up, the guy is gone.

Harv has had enough of this. He brings paint and a brush from Storage and covers the graffiti. He has also brought a Magic Marker. If they are going to play this sophomoric game, it will be by his rules:

WHY DO ALLIANCE PEOPLE WEAR TURTLENECK SWEATERS?
TO HIDE THEIR FLEA COLLARS.

The next night, he confronts the Alliance kid, but it appears that he has been waiting for Harv.

"That's peculiar, but it's pretty good," he tells Harv. "Will you do one for me?"

Harv takes his writing tube and flushes it down the toilet. "Be happy to, but we'll use *my* pen."

The kid shrugs. "Agreed."

WHY DOES IT TAKE FIVE BLOC PEOPLE TO MAKE POPCORN?
ONE TO HOLD THE PAN AND FOUR TO SHAKE THE STOVE.

"Brilliant!" the boy exclaims.

"Common sense," Harv says. "Plain English is always the best approach to writing."

The following night, the Bloc vandal awaits him. He is no longer tongue-tied.

"Conflict Central's computer is in chaos. Your message caused it to advance the Alliance's main front 500 kilometers, negating our gain of the previous day, and then some. One more setback and we'll lose the Low Countries. Please!"

Harv sighs. "How much longer is this going to go on? I'm a busy man and your shenanigans have me behind schedule."

"Not long," he pleads. "Two or three more brilliant attacks by

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you, and they'll sue for peace."

WHY DID THE ALLIANCE ZOO SHUT DOWN?
THE RAT DIED.

then

WHY DID THE BLOC COUPLE GET MARRIED IN A BATHTUB?
THEY WANTED A DOUBLE-RING CEREMONY.

then

HOW CAN YOU TELL THE BRIDE FROM THE GROOM AT AN ALLIANCE WEDDING?
SHE'S THE ONE WITH THE CLEAN BOWLING SHIRT.

Both vandals appear at once. The stall has been wiped clean, and they are holding a velvety cape and a golden stick with a rock on the tip that would be a zillion-carat diamond if it were real.

"Hostilities have ended," says one.

"Thanks to you," says the other.

"You have shown us the futility of war. We are now the Bloc-Alliance."

"*Alliance*-Bloc."

"Whatever."

They drape him with the cape and hand him the stick, as if he was their homecoming queen.

"For the merger to prosper and endure, we must have an omnipotent leader. It has been decreed."

Harv smirks. "Let me guess. Sigma Chi? I've heard about some of your stunts."

They drop to their knees, heads bowed. "Hail, Emperor Harvey I!"

"Hey," Harv protests. "I haven't done this floor yet."

They rise, each clutching one of Harv's arms, and begin to diffuse, doing their fadeout trick again. Harv starts to tingle, feels a hard jolt of acceleration, although his feet are still locked to the tiny tiles. He suddenly takes the bimbos seriously and grabs the blackboard he hung an instant before he finds himself soaring in a dense fog of nothingness.

"This is kidnapping!"

"It is destiny, Sire."

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The chalk flies in his hand. "This is what it is, sport!"

WHY IS IT ILLEGAL TO KILL A FLY IN THE BLOC?
IT'S THE NATIONAL BIRD.

"Your Highness, you're precipitating another conflict," one gasps.
"And how's this for a frontal assault, ace?"

THE BLOC AND ALLIANCE PLAYED A FOOTBALL GAME.
IT WAS A SCORELESS TIE IN THE FOURTH QUARTER.
THE BLOC TEAM GOT BORED AND WENT HOME.
THREE PLAYS LATER THE ALLIANCE SCORED.

"He's mad," the other mutters.

"What can you hope to accomplish by this insanity, Sire?"

They seem to be slowing, as if their ethereal journey is near end, their freaky Gooney Bird approaching the runway, gear down and locked.

Harv erases, providing space for more salvos. "Abdication," he says. "It's either that, or I have several hundred more megatons of these gems blocked out in my head."

Harv is alone in the vapors, speeding backwards, tumbling. He makes a hard one-point landing, square on his ass, in the nineteenth floor john. Alone.

He rests for a few minutes, moving gingerly at first, checking for broken bones. The fate of dishonored royalty, he muses. He picks himself up and trudges out to complete his tasks, with a brief nostalgic yearning for the days of Kilroy, et al.

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INSTEAD OF A STORY

by Ted Reynolds

art: Leo Summers

Mr. Reynolds—the traveller in archipelagoes—shows us just how he comes by some of his stranger ideas.

FIRST DRAFT: 5:00 A.M., JUNE 1st, 1980.

So if you *can't* sleep, Ted, write the story already.

It's not worth the effort. Oh, there's a germ of an idea there, a cute little mini-take on the human condition. But do you know what it would take to make a *story* out of it?

Not that much. Flesh out your characters, move them through a few scenarios, add the words . . . say fifteen pages at most.

But all I've got to *say* is a couple of pages worth. Why all that padding?

You get paid by the word?

I don't come *that* cheap!

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Well, do it your own way, and then let's sleep. I'm just saying, no one's going to *buy* it unless it's a *story*.

I know, Ted, I *know*. Still . . .

THESIS: SUPER-ALIENS, SPEEDING PAST THE SOLAR SYSTEM, SOLVE ALL HUMAN PROBLEMS AT A SINGLE STROKE.

How do they get here?

Since it wouldn't make the least difference to the point if they came by quantum-jump hippogriff or FTL birchbark canoe, I'm not going to worry about it.

Well, what're they *like?*

Sickeningly paternalistic. The rest is irrelevant.

You're not much help. How do they solve all our problems?

I thought you'd never ask. That *is* important. They give every individual human being unlimited telekinetic powers.

WHAT? That's insane!

Not quite. There's a catch. If I wrote the story, I'd have some diplomat protest, with unlikely rationality:

"It is not, brothers from the stars, that we are ungrateful for your magnanimous offer, but perhaps you do not fully appreciate the enmities and jealousies among our yet immature race. I fear such power as you intend to bestow upon us would only lead to our own extinction. Perhaps in a few thousand years, when we have learned altruism, we could use such abilities."

And the benevolent aliens reply, (via tickertape, mental baritones, or manipulation of the aurora borealis, I don't care a radish,) *"Fear not, oh youthful brethren, many races have we helped, and nothing causing more harm than good would we give you. Such ones as would use their new powers to the serious detriment of others shall lose such powers forever at the first such intention. It is of the essence of our gift that it is unavailable to those who would harm others."*

You got that from Van Vogt's "Weapon Shops."

Oh, shut up and listen.

So every man gets the power to manipulate the physical universe in any way he can imagine, as long as he does not project the harm of others. The aliens dash on out of the solar system, since, with several hundred million budding stellar systems to take care of,

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they can't give more than an hour and twenty-nine minutes to any one of them.

Now, *that* I like.

I thought you would.

So Mankind is saved, by interstellar intervention, and from now on his existence is a total utopia, since nothing can go wrong, huh?

Thanks, Ted. You're the perfect straight man. No, not quite . . .

ANTITHESIS: MAN DOESN'T FEEL COMPLETELY HAPPY WITH THE NEW SITUATION.

You see, it turns out that, Man being what he is, (and Woman not that far behind,) within a week over 90% of the human race has been penalized for destructive thinking by being stripped of their new powers.

You too?

Sure, us too.

Who's still got the powers?

Oh, a few thousand village idiots out of Simak who love everybody despite being universally despised, and a pretty fair percent of the population under four years old. Though a lot of those have failed the test also, including any baby who is not fed on schedule. Now, if I were writing the story (which I'm not gonna) I'd have to zero in on this one family to show the resulting state of affairs. What it is, is, the adults have got to woo those damned little kids, since only they've got the super-power. Dad has to be sweet and loving to four-year-old Mikey (Sally being too young even to keep two vertical blocks from toppling) so Mikey will build, say, Daddy's half-mile-high Renaissance palace for him. All sorts of vignettes in there showing how Daddy has to spoil Mikey rotten, to get him to perform. And all around other parents kowtowing to their kids to get them to irrigate deserts and drain oceans and send communities to Arcturus and like that.

I still think you should write it out as a story, Ted.

I don't want to. Those parts any reader can fill out as well as I can, probably better. I'm just giving them this new idea they can build from. Let 'em use their own imaginations.

It'll never see print.

I *know,* damn it. Stop saying that, Ted.

So if it *were* a story, I'd have to sketch a plausible psychology for

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this character, Daddy, as he begins to resent his son . . . for wanting to spend so much time on things that are more interesting, for a four-year-old, than fitting in the drains of a Renaissance palace, but mainly, for having staggering powers that Daddy doesn't have any more; that, in fact, if he *did* have again, he'd lose in half an hour, just because he's so murderously furious at Mikey. So we reach the point that Daddy *wants* Mikey to lose his power, and manages to make the kid so angry that he wants to *kill* his father, and . . . poof . . . Mikey joins the impotent majority.

I think you slipped through five pages in that last sentence.

Right!

Daddy doesn't care about his palace any more?

He waits till it's finished, of course.

How does he make Mikey so furious?

You'll think of a way.

How does Mikey like being tricked out of super-powers?

SYNTHESIS: MAN, DESPITE THE NEW CONDITIONS, WORKS OUT A METHOD FOR REMAINING HIS ESSENTIAL SELF AFTER ALL.

The story would end like this:

Mikey found two-year old Sally sitting in the sandbox, digging seriously with her red shovel. He squatted beside her.

"Daddy wants you to do somethin' for him," he said.

*"**You** do sumpin'," said Sally indifferently, scattering sand to the winds.*

*Mikey looked up at the towering walls nearby, where their father patrolled the battlements on final inspection. "But this'll be **fun**, Sally," he said. "Daddy wants you to knock down his big palace. Crumble it all up to smithereens!"*

*Sally looked up at the looming turrets, her fat face puckering between excitement and skepticism. "All down?" she asked, waving her hands expressively. "Kerrrrr-**boom?**"*

*"Right now," said Mikey with full assurance. "Knock it all flat as a pancake. That's what Daddy really **wants!**"*

END OF FIRST DRAFT: 6:00 A.M., JUNE 1st.
END OF FINAL DRAFT: 7:20 A.M., JUNE 1st.

Can you get some sleep now, Ted?

Yeah.

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TWITCH ON THE BULL RUN

by Sharon Webb

art: Alex Schomburg

We think we've figured it out. Mrs. Webb obviously has a rhyming dictionary at home and she is determined to write a story for every word ending in ch. *This theory gives rise to some very interesting possible futures for Terra Tarkington, Interstellar Nurse. We're looking forward to seeing all of them.*

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Somewhere in Baguerife
Hyades IV

April 2

To Whom It May Concern:

Help! I, Terra Tarkington RN of the Interstellar Nurses Corps, am being held against my will in the House-Of-Many-Women by the HoHahn of Baguerife.

If you have any compassion in your soul, you will rescue me at once before the HoHahn makes me his forty-seventh concubeing. There isn't much time—to a human, a Hyadean's embrace is death.

It isn't my fault that I am here. I was abducted. I weep, I sigh, I rail against my fate, but the HoHahn of Baguerife turns a deaf ear (to coin a phrase) on my pleas. And if you could see the HoHahn, you would realize why I am so upset. In the face, he looks like any Hyadean IV, humanoid, with a crease instead of a nose, but he is *rotund*. A rounder creature I have never seen.

I don't want to be a concubeing. All I wanted to be was an IMCU nurse.

Dr. Brian-Scott (who is my beloved) tried to talk me out of it, but I thought it would be a good thing. I had my career to think of. And also IMCU nurses get a pay differential which I can use, let me tell you.

First I had to go to IMCU class, which meant leaving Satellite Hospital Outpost for awhile. After a tearful goodbye, I left my beloved and took the shuttle to the Hyades IV MegaMed Center.

Well, you might know that I was the only human in the class. But hasn't that been the story of my life ever since I joined the Corps and came to the Bull Run?

I began to regret my decision almost at once. You'd think Intensive Mental Care Unit nursing would be a cerebral activity, wouldn't you? Well, you would think wrong. I have never worked so hard in my life.

When I got to MegaMed, this testy Hyadean IV female in the front office looked down her crease at me and told me to go to level seventeen. That was easier said than done. When I got there, I was stopped by an air lock. Level seventeen has a methane atmosphere. I looked through the ports and there were a bunch of bladders with flagellae floating around. I couldn't tell if they were patients or staff.

By the time I got to the right place, level *seventy*, and had checked in, I had missed the orientation lecture. Everybody was already lined up for equipment.

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I sandwiched in line between a girl from Hyades IV and a macromouth from Nath III who waggled his olfacs in my direction and remarked how "close" the air suddenly seemed in the room. Well, you talk about self-conscious. And I had just bathed too.

I couldn't wait to get away from him, but the line just dawdled and dawdled. Finally, I got to the end, shoved my Eydee into the servo and got my beads-of-light and my loin cloth (one size fits all).

Then we all went to change and afterwards we gathered in a big mirrored room.

You would be absolutely amazed at where and how some beings wear their loin cloths. Absolutely amazed. Most of the class were Hyadeans who are shaped more or less like humans, but the ones from Nath III—well, I never dreamed that their olfacs were multipurpose like that.

I had on my loin cloth and my beads-of-light and nothing else. The beads weren't activated yet.

Then the instructor came in. She was from Hyades IV and she was wearing an acid-green loin cloth that didn't do a thing for her skin. She waggled her crease in greeting and then we got down to work.

You don't know what exhausted is until you train for IMCU nursing. Every muscle in my body throbbed. Mental Care technique is especially stylized, and I was at an awful disadvantage. Since the modality was invented by Dr. HodelHok who is from Hyades IV, it was *not* designed for the human body. Humans bend differently than Dr. HodelHok.

First, we had to stand on our left foot (or pod, as the case may be) with the right leg (or legs) bent and the knee stuck out at right angles to the body. Then we had to raise whatever arms we had over our head and touch the back of the hands together. This was the therapeutic position which is a way of getting the patient's attention. We had to watch ourselves in the mirrors while we did this so that we would get it right.

Some of the class looked really obscene. I got a look at the macromouth from Nath III and I will tell you something—if I ever have a mental breakdown, I wouldn't want him to treat me for fear of worsening my condition.

After we had mastered the therapeutic position, we had to learn the first Variation (Reorganization of Energies). There are twelve Variations altogether and each is harder to do than the last. (Actually there are sub-Variations too, but most of those are used for veterinary patients.) In Variation one, you tap the back of your

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hands (or whatever) together—one, two—and then you flup. Flupping is easy for the Hyadeans. They just extend the crease where their noses ought to be and then snap it shut. But for me, the accepted technique was to stick my upper lip out until it touched the end of my nose and then make a sort of plopping sound and drop my lower lip open. And if that sounds easy, well, you just try it sometime.

The instructor was a slave driver. If I live to be two hundred, I will never forget her voice (she whined through the crease) saying "One, two—flup, flup. One, two—flup, flup."

Anyway, when we perfected the twelve Variations, we were allowed to activate our beads-of-light, which is very important. The beads are tuned to each Variation. The wave-lengths of each color combination, combined with the varying flashes per micro-second, effect the necessary electrical changes in the brain, while the body movements act as a hypnotic focus and enhance the beads-of-light. Or, as Dr. HodelHok teaches: "HoDok HahHahn. HahHahnah Do'Hok." Only I don't know how to translate that.

There we were, our beads-of-light reflecting like old neon in the mirrors, our loin cloths swaying gently. It was beautiful. I saw myself as my patients would see me—an object of therapeutic serenity, dedicated to the exorcism of mental disharmony.

But that wasn't the way the HoHahn of Baguerife saw me at all.

It was my first day in Intensive Mental Care back on Satellite Hospital Outpost, and I was plenty anxious, let me tell you. We were getting a new patient—a Very Important Being—with an admitting diagnosis of acute euphoria.

The IMCU supervisor, Mrs. Qotefleer, who is an Aldeberan, was in a state. She hissed and lashed her tail around the room (the way they do when they're excited) and drizzled her S's all over the place. "Mi-s-s-s Tarkington. It is-s-s-s mos-s-s-t careful you mus-s-s-t be. This-s-s-s is-s-s-s a mos-s-s-t important cas-s-s-se."

They wheeled the HoHahn into the unit. He was so enormous he barely got through the door. He waggled his crease at me in a suggestive way and then he giggled and pointed at my loin cloth.

I would have known without being told that the HoHahn was a VIB because his chest was a mass of medals. I said, "Good morning, Your HoHahn. I'm Terra Tarkington and I'm going to be your nurse."

Well, for some reason that caused the HoHahn to laugh all the harder. His belly jiggled and set all his medals—kilos of them—to clinking. We undressed him, which was about like skinning a robot,

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and put him to bed.

That gave the HoHahn an intensified case of the giggles which led to absolutely unrestrained mirth. His face was *wreathed* with laugh lines. Suddenly he flared his crease and reached for my beads-of-light. "My little fire-flit," he giggled.

I whirled away and came back in the therapeutic position.

Well, that served to inflame the HoHahn even more. He leaped out of the bed and *chased* me around the room.

It was awful. Here was my patient, suffering from the most acute case of euphoria I have ever seen, running after me and snatching at my loin cloth. It was obvious that he had lost all touch with reality.

It was then that Mrs. Qotefleer, my supervisor, came into the room. She called for help and had the HoHahn restrained. Since it was such an unusual case, she performed the therapy herself while I dimmed the lights and watched.

It was a moving experience—Mrs. Qotefleer's beads-of-light reflecting against her blue scales, the look of amazement crossing the HoHahn's face. I could tell that the treatment was working because the HoHahn stopped giggling. After a while, he looked really stern.

He was discharged the next day. We waved goodbye to him as he was wheeled down the hall. I thought that was the end of it, but a little while later, the HoHahn showed up again with a dozen of his aides.

He marched up to Mrs. Qotefleer with all his medals clanking and one of his aides whispered something to her.

Mrs. Qotefleer blanched (I thought she would faint, she was such a pale blue) and threw her arms around me. "S-s-s-stop! You can't have her."

Then, one of the aides grabbed my arm. "This one told His HoHahn that she was *his* nurse. We have paid for her." He waggled something under Mrs. Qotefleer's snout.

It was a receipt for the HoHahn's hospital bill.

But actually that was a transparent subterfuge. The HoHahn knew he hadn't bought me. He wanted me because I resembled a creature straight out of Hyadean mythology—the fabulous H'yo-HahKo, the fire flit, who if captured has the power to confer great wealth. The HoHahn thought that if I were his concubeing, I would be working for *him.*

Well, I raged and cried and stamped my feet; but it didn't do any good. The HoHahn's henchmen pried me loose from Mrs. Qotefleer and dragged me away. And the last thing I saw at Satellite Hospital

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Outpost was my beloved, beautiful Dr. Brian-Scott, watching my departure with a look of anguish on his face.

They hauled me onto the HoHahn's private shuttle and took me here to the House-Of-Many-Women, which is full of Hyadeans of the H'yoKdot sect who don't speak Standard. The rest are big fat H'yodeltoks who are hostile and who eat grease.

No one has stepped forth to help me except the HoHahn's little house servo who promised to deliver this letter to the outside world. And the house servo, who is loyal to the HoHahn, wouldn't have done that except that it can't read. It thinks this letter is a recipe for ceremonial punch.

The HoHahn tells me that he will take me as his concubeing by tomorrow noon. His euphoria has returned and he is quite mad.

I am doomed. The Hyadean embrace means death. And if the HoHahn were to touch me, I would die on the spot anyway.

It is all too ghastly to contemplate. If I ever get out of this mess, I swear I will never leave the side of my beloved again.

So please, *please,* To Whom It May Concern, come and free me from the House-Of-Many-Women. I offer you my eternal gratitude and my IMCU differential as a reward.

Yours in fearful dread,
Terra Tarkington

TRANSCRIPT OF THE PLEA FOR LENIENCY BY THE CONDEMNED, TERRA TARKINGTON RN, TO THE HIGH PRIESTS OF BAGUERIFE:

I am *not* a dirty infidel spy. It isn't true that I intended to subvert the Sacred Oracle. I was simply trying to help her sinus condition. And I think it's very unfair of you to threaten to throw me into the Sacred Volcano of BagHardad.

If it weren't for the HoHahn, I wouldn't be here at all. He was trying to take me for his concubeing so I did the only thing I could; I treated his euphoria with the H'odelHok technique.

It's true that I modified the technique a little. Maybe it wasn't altogether ethical what I did, but it was in self-defense.

Right before the ceremony, I activated my beads-of-light, assumed the therapeutic position, and began Variation five (which is the one you use when you want to build a feeling of rapport with a violent). From there, I went into Variation seven (which is Peace and Harmony).

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I'll admit that I left the HoHahn with a post-therapeutic suggestion, but it isn't true that I'm a spy. All I told him was that if he took me as his concubeing, a powerful enemy would seek revenge.

I didn't *know* that the HoHahn of Baguerife had stolen his forty-sixth concubeing from the HoHahn of Renerade. How was I supposed to know that the HoHahn of Renerade was sending a Ho'Henji brigade in order to wage war?

Anyway, when I told the HoHahn about the revenge, he was overjoyed. He laughed and jiggled his medals and called me his little fire-flit.

He told me I was a gift from the Great Being and then he took me to the Sacred Volcano of BagHardad and apprenticed me to the Oracle. The idea was that I, H'yo-Hahko, in tandem with the Oracle would make very big magic.

And that's another thing—I don't know if you people care, but I don't think you treat your Oracle very well. How would you like it if you never had a day off from the Temple?

She's really a very nice lady. When I first saw her leaning over her tripod, swaying back and forth and muttering, I thought she was a little strange. But you'd be strange too if you had to breathe volcanic fumes all the time.

The smoke was coming out of the floor from a little fumerole. She waved her arm and pointed to the smoke and said "Sh'Bong." Well, I took a sniff and I'll tell you this, Sh'Bong smells sulphurous and awful. It's got to be deleterious to health: the Oracle's crease was stained brown with it, and she had a terrible post-nasal drip. Besides that, the fumes were making her drunk and giving her a miserable sinus headache.

I'm sure that if you'll reconsider, you'll realize that she is a better Oracle today because of what I did. And when you reconsider, you will realize that there isn't any reason to throw me into the Sacred Volcano of BagHardad.

I thank you.

EXCERPT FROM THE TARKINGTON PAPERS FOUND IN THE TEMPLE OF BAGUERIFE:

. . . and it's all desert around the temple. Little fissures let off noxious effluvia from the volcano and everything is dry and dusty. You can imagine what shape the Oracle's sinuses were in. So I made the Oracle a little mask to wear over her crease.

The improvement was amazing. Up to then, the poor thing was

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so giddy from the Sh'Bong that she wasn't making much sense at all.

All day long people would crowd into the temple to ask questions. She used to weave around on her tripod and give ridiculous answers like, "The ides of Ho'kHanno—beware, beware." But I guess the crease-mask filtered out some of the volatile oils that were making her drunk.

She was so grateful. It would make your very heart leap for joy (to coin a phrase) to see her sober. She's really a very nice girl. She hates her job. She told me she'd rather do laundry than be an Oracle.

The priests didn't like it at all. They came in and one of them asked her what the sands augured for the Holy Coffers. Well, she looked him right in the eye (she has a steely gaze) and said, "The sands augur a vacation for the Oracle and they aren't going to augur anything else until she gets it."

They tried to get the Oracle to take off her mask, but she wouldn't do it. She said it was the first time she'd had any relief in fourteen revolutions.

That's when they accused me of being a dirty infidel spy and condemned me to the volcano.

But I have reasoned with the High Priests and I am sure they will let me go.

The Temple of Baguerife
Hyades IV

Just before dawn, April 5

To Whom It May Concern:

Help! I, Terra Tarkington RN of the Interstellar Nurses Corps, am about to be thrown into the Volcano of BagHardad. They will come for me at dawn.

If you have any compassion in your soul, you will rescue me at once.

I am innocent. And if I ever get out of this, I will go back to the Bull Run to my beloved, beautiful Dr. Brian-Scott, and I will never complain again.

So please, *please,* To Whom It May Concern, come and free me from my awful fate. I offer you my eternal gratitude, my loin cloth, and my beautiful beads-of-light.

Yours in dreadful fear,
Terra Tarkington

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EXCERPT FROM A LETTER TO CARMELITA O'HARE-MBOTU RN, UNITED EARTH, SOL:

. . . and when dawn came, these grim-looking priests took me out in the desert to the rim of the Volcano of BagHardad.

It was fiery and awful and smelled of Sh'Bong. Lava roiled around inside and every now and then the volcano would rumble. Well, you talk about death yawning before you. I thought I was going to buy the bucket for sure.

Suddenly there was a commotion. I looked up and here came the Oracle striding across the desert like an avenging angel. She marched up to the priests and planted her crown on her head (which meant she was speaking *ex tripod,* and was therefore infallible) and said, "Let the girl go or else death, destruction, and clouds of crease-eaters will plague you."

The High Priests didn't like that at all. They huddled in a little clump and talked about it and every now and then they'd peek over their shoulders at the Oracle and me. Finally one of them said, "Oracle, you have lost your powers."

She drew herself up and stared them down and said very slowly, "But can you be sure?" And then she winked at me.

Well, they let me go back to my beloved; and the Oracle came too, for her first vacation in fourteen revolutions.

The HoHahn of Baguerife was very put out about it. He said I belonged to him. He had a recéipt. But the Oracle said not to worry about him.

His euphoria was permanently cured because she gave him a dose of Sh'Bong and, while his mind was altered, told him that she foresaw a grim future for him unless he behaved himself.

When we got out of the shuttle, Dr. Brian-Scott hugged me, and hugged the Oracle, and then hugged me again.

When we were alone at last, he was very subdued. He kept looking at me with a funny look and then he said, "I thought I'd lost you, Terra. I've been terribly depressed."

Well, what could I do, Carmie? I put on my loin cloth and activated my beads-of-light.

When I assumed the therapeutic position, my beloved stared at me with rapt attention.

I turned on some music and then I began to alternate between Variation nine (Rising Excitement and Pleasurable Tension) and Variation eleven (Exultation and Bliss).

And in almost no time, Dr. Brian-Scott's depression had lifted.

Then, the most amazing thing happened. He began going through

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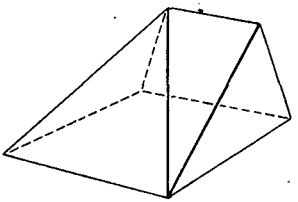
the Variations with me. My beads-of-light flickered in lovely glints over my beloved as we moved in time to the music.

Do you know what he said then, Carmie? He said (I remember his every word), "Thank you for coming back to me, Terra."

Then he told me he'd been studying technique too while I was gone. He said he would teach me H'odelHok's thirteenth Variation which is very advanced and very good for the psyche.

Yours for mental health,
Terra

SECOND SOLUTION TO THE POLYBUGS OF TITAN
(from page 79)



The seventh convex hexahedron is shown above.

The general problem of enumerating all distinct convex polyhedra, given the number of corners, faces or edges, is extremely difficult and remains unsolved except for very low values. There is only one polyhedron with 4 faces (the tetrahedron), two with 5 faces (a pyramid with a quadrilateral base and a tetrahedron with one corner sliced off), and thirty-four with 7 faces.

A proof that there are just seven convex hexahedra is given in *Excursions into Mathematics*, a highly recommended book by Anatole Beck, Michael Bleicher, and Donald Crowe (Worth Publishers, 1969), pages 29-30.

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SPACE AND THE LONGEVITY OF MAN

by Stefan T. Possony and Jerry Pournelle

art: Artifact

Dr. Possony received his Ph.D. in 1935 from the University of Vienna, where he was associated with the Anti-Nazi movement. He worked with the French Air Ministry until WWII, and then with the US Intelligence Services. He has collaborated with Dr. Pournelle on The Strategy of Technology *(Univ. Press of Cambridge, 1970).*

Dr. Pournelle received his doctorates in Psychology and Political Science from the University of Washington. He worked for many years in the aerospace industry, then as a college professor and Director of Research for the City of Los Angeles. Since 1970 he has been a freelance author, lecturer, and consultant.

This paper was presented at the 1980 annual meeting of the American Association for the Advancement of Science.

Animals, it is believed, live only in the present. Man, the time-binding animal, lives in the future and past as well; and his assumptions about the future will profoundly affect his actions.

Of particular importance is how *long* the future is assumed to be. Actions may be rational or irrational depending on this assumption: it makes sense to spend the nest egg and eat the seed corn if the world must end tomorrow. Much contemporary irrationality may be caused by a sharp reduction in mankind's historical dimension.

For example: many computer models show that our civilization is doomed no matter what we do. Although the purported message of *The Limits To Growth* (1) was a recommended action, namely severe limits to population growth and industrial development, the actual message was taken by many to be the opposite; according to

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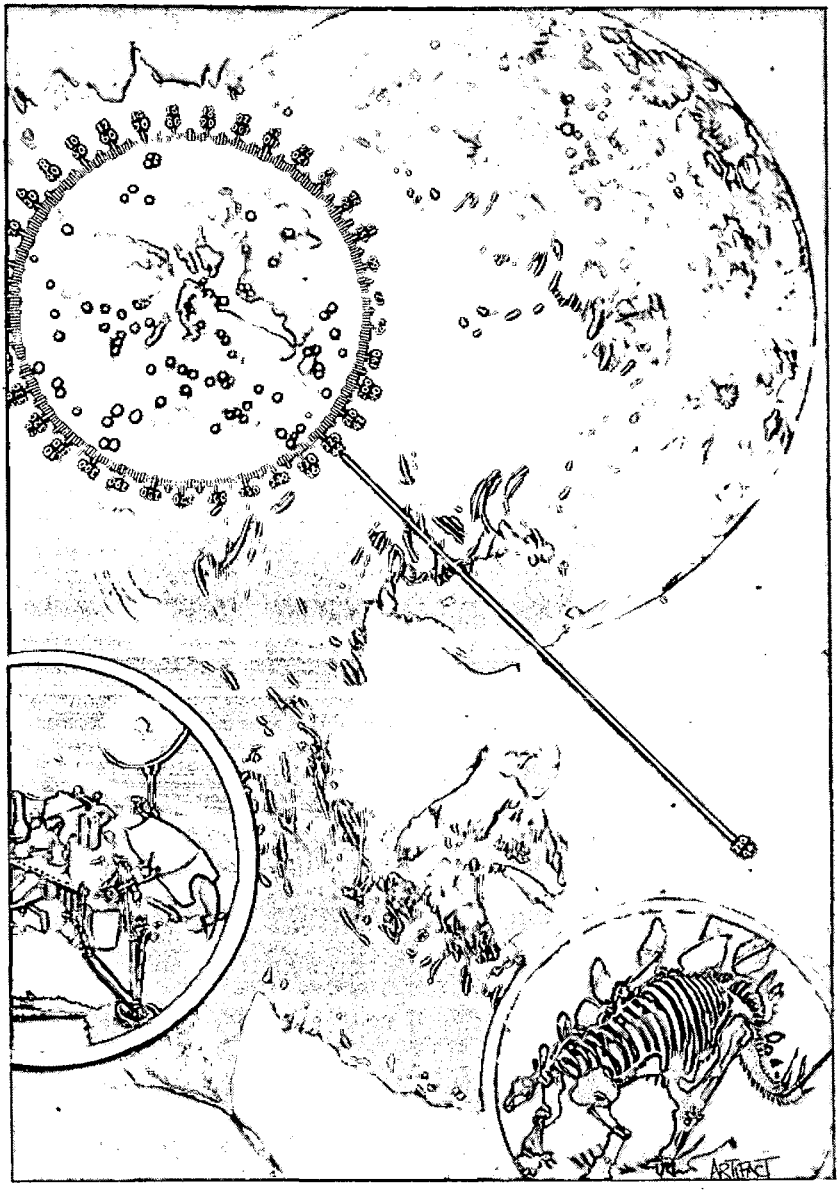

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the models used in *Limits* our civilization is doomed within a few hundred years no matter what we do. Why, then, be concerned with preserving such a limited future?

But man's days may be longer than that.

In the past only prophets and mystics tried to determine the time allotted to mankind. The early Christians expected the Day of Judgment within their lifetimes. Some 25 generations later the end was expected at the millennium: sometime in AD 1000 history would end. Nostradamus carried his predictions to AD 3797; and while he seems to have anticipated continuity beyond that date, he warned that "God only knows the eternity of the light proceeding from Himself." He added that we live in the seventh millinary when the eternal revolution will be ended. In the eighth sphere the "celestial bodies" will move again, and their "superior motion" "will make the Earth firm and stable." Whatever this means, survival was conceived as a short-time prospect, for no more than 100 or so generations into the future.

The Etruscans believed that the cosmos would exist for no more than 12,000 years, and they themselves would last only 1200; their end was inevitable and dictated by fate. They did not care to defend themselves against decline, and made little resistance to the Roman conquest which liquidated their civilization.

Prophecy has fallen out of fashion, which is probably just as well. At least the prophets with literary inclinations have largely abandoned the field to those with high-speed computers. Decline of religion has brought a corresponding decline in contemplation of eternity. But the unfortunate result of this atrophy of prophecy is that barely anybody now worries about how much future we do have. According to Victor Franke, a prominent successor to Freud, the contemporary world suffers from loss of meaning. Freeman Dyson remarked on this in his paper at the Washington meeting, quoting Steven Weinberg's *The First Three Minutes* (2) as follows: "This present universe has evolved from an unspeakably unfamiliar condition, and faces a future extinction of endless cold or intolerable heat. The more the universe seems comprehensible, the more it also seems pointless."

And so, while we search for meaning, we pointlessly continue our hopeless existence.

Of course evolution has a way of dealing with those who despair. For most of us, meaning is linked to protracted survival. Given longevity it makes no sense to eat the seed corn. What is rational for mayflies is not rational for the longer-lived.

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What are our chances for indefinite survival?

At present there are three cosmological theories, each leading to a different estimate of time remaining: the open and expanding universe—which is the most popular candidate this year; the closed universe whose expansion will be followed by contraction and death by fire; and the steady-state universe during whose existence no major changes are anticipated. At present this latter seems the least favored; but certain steady-state theories, such as the suggestion by Sir Fred Hoyle that there may be continuous creation, lead to very long survival estimates indeed.

Allan Jacobsson, principal investigator for NASA's High Energy Astronomy Observatory HEAO-3 and specialist in gamma ray astronomy, is looking for evidence of nuclear activity in celestial bodies. "There are heavy elements in the universe with half lives shorter than the age of the universe. . . . They must have been manufactured since the creation of the universe. . . . What we are looking for are sites where heavy elements are synthesized." Whereas the infrared background radiation supports the thesis of the expanding universe, continuous creation would support a modernized version of the steady-state thesis.

All three cosmological theories allow one to assume the earth will remain inhabitable for a billion years or so. Then, eventually, around AD 1 or 2 billion, *homo terrestris* must embark on Noachian Arks of Space and leave the Solar System.

Thereafter he has 100 billion years in the open universe before the stars burn out. For the closed universe the turning point from expansion to contraction will come in some 50 billion years, but by skillfully choosing his habitations man should be able to survive for an additional 50 billion, for a total of 101. In the steady-state universe he should last longer, although most such models show that life there must also end. The open universe gives us some 10^{27} to 10^{100} years; provided that we can extract some of the rotational energy from black holes. In the last phases there might be many civilizations "close" together—a few light days from each other—clustered around the last hole in the universal or one-world galaxy.

Thus life in this planetary system seems limited to some 40-odd million generations, while within the universe itself survival can be stretched by a factor of 100, to 4 billion generations. (Four generations are assumed for 100 years.)

In the end, though, the universe collapses, and is eventually reduced to neutron stars, black dwarfs, black holes, and a few odds

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and ends. The temperature will sink toward absolute zero. The most distant estimate we have seen for final doom was in Freeman Dyson's Washington AAAS meeting paper: 10 to the 10 to the 76 years, no small time.

Even taking the shortest estimate, Weinberg's lament seems a bit premature. Since for the next billion years we will—or could be—engaged in populating the universe, concern for its end may safely be postponed, or perhaps left to Dyson periods and Divine providence.

We thus have one billion years to prepare our departure from this neighborhood, and another billion after that to move to other galaxies.

Two years ago Bell Laboratory's Dr. William Gale added the provision "if no one beats us to them." Fermi's famous analysis took the number of stars, an estimate of the probability of planets, another estimate of the probability of life; finally the time it would take, travelling at relatively slow speeds, to visit us. He concluded with what may be the most important question ever asked: "Where are they?"

Robert Bussard answers that they are here, and we're them.

But assuming no one successfully disputes possession with us, we have time. The past history of *homo sapiens* extends some 200,000 years; of *homo erectus* and his ancestors 3 or 4 million; and for the hominids, perhaps as much as 10 million. Compared with our potential of 100 billion we have only just begun. It's not quite time to give up.

The billion years we have in this solar system will not give us the entire universe. We may not visit more than one percent of it. Yet given velocities of 0.1 c we can, within a million years, traverse this galaxy—and we could in theory build a .1 c probe with present technology. See Robert W. Forward of Hughes Research for details.

Frank Drake has suggested that "colonization" can be completed within about 10 million years per galaxy: even if he is off by a factor of two, we could colonize 50 galaxies before we must abandon Earth. (By that time we may decide to move the Earth, or bring it a new Sun; Earth will, after all, have sentimental value, and we ought to preserve it as a park . . .)

Given our billion years in this solar system we will be able to learn quite a bit about many parts of the universe. A few illustrative examples are in order.

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The nearest planet is Venus, some 30 million miles away at closest approach. The furthest planet we know of, and one for which we may have little use, is Pluto at 3 billion miles. This is our backyard.

The nearest stars are some 6000 times as far as Pluto: Alpha Centauri at 4 lightyears. Sirius is some 10 lightyears away. There are also smaller and less interesting stars, such as Barnard's Star, in the 4 to 10 lightyear range.

Within a sphere with radius 60 lightyears from Earth (strictly speaking, from the Sun, but at those distances it hardly matters) there are some 4.5 stars per cubic lightyear, or over 4 million total.

We expect that at least some of those stars will have planets, and a few of those planets may be inhabitable without extensive modification; these are unknowns at present. Note, however, that humanity's longterm survival does not depend on the existence of planets at all; we could, with present technology, construct space habitats, and we can conceive of ways to turn stars into raw materials.

Even though we are well out on the spiral arm of our galaxy, there are very significant star populations within 500 lightyears; and only 30,000 lightyears away is the center of the galaxy. The whole Milky Way spreads across some 100,000 lightyears.

There are distant galaxies, ranging from our near neighbors at distances comparable to the diameter of our own Milky Way through Andromeda—just visible to the naked eye on a clear night—at 2,000,000 lightyears, on up to the Coma cluster of thousands of galaxies at 500,000,000 lightyears. There are more beyond that distance, but probably the point is made. Each galaxy contains some 100 billion stars on the average, and galaxies tend to occur in clusters. Penetration to one "foreign" galaxy brings access to additional galaxies; there may be as many as 100 billion galaxies out there. We are unlikely to run out of stars for a long time.

Or are we? Starting with our present population and assuming a modest 0.05% population growth, by the time we have used up our billion years there will be more people around than our calculators can handle. (Actually that's the case if we start with only 2 people.) We may need all those stars.

Of course that kind of space travel is not analogous to a long trip with the traveler planning to return. It is better compared to the migrations of the American Indians from Asia to America; no one returned, but each generation moved forward by significant, albeit limited, steps.

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But what are our chances of accomplishing these star treks? That is the same as asking what are the chances of competence.

In perhaps 200,000 years we have gone from animal existence to the capability of living in space. We could, with what we know at present, put permanent colonies in orbit, on the Moon, and in the asteroid belt.

Beyond that we don't know. When we consider interstellar flight, we cannot now know whether we are going to detect the resources we need in the places we will require them. But we do know that discovery and usefulness of "matter" are functions of knowledge. We also know that knowledge is a process which is both self-propelled and accelerating.

If knowledge were to grow at a rate of .00083—roughly the rate of our beginnings—it would multiply 4000-fold within 10,000 years. If the growth rate stabilized at 0.1%, the original stock would grow 21,000-fold. Our current growth rate of about 5% would put us in the position of multiplying knowledge each 5000 years by 100 orders of magnitude.

If we survive there seems little question that the store of knowledge will grow explosively as a function of elapsed time; in a period of a billion years any non-negative growth rate produces astounding results. Although much knowledge becomes obsolete or invalid as a result of new discoveries, still more is additive.

If we live long enough, humanity should be able to reach the stars and other galaxies. It is not necessary that *we* know how it will be done.

What, then, are our chances of survival?

Well, first there are catastrophes. One of us has made a lot of money writing about one possibility: a celestial collision with a large object at high relative velocities. True, this is a low-probability event; but over a long enough period of time it becomes well-nigh inevitable.

And we have the example of Professor Alvarez's speculations on the extinction of the dinosaurs. There is considerable evidence now, all indicating that the dinosaurs starved after a large comet or asteroid struck the Earth and so changed planetary albedo as to kill off most vegetation.

We have survived whatever disasters have happened to this planet, but perhaps we exist because some predecessor was utterly wiped out.

There are indications that the Sun, and perhaps Jupiter and Sat-

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urn; are not entirely stable.

The solar system may be crossed by inter-stellar clouds and dust; by bands of high radioactivity—as an example, Messier 82 seems to be flooded by speedy gas streams resulting from star explosions and formations. Then, too, there are some 200 globular clusters in our galaxy, with about half of them near the 100 lightyear line. There are some 500 planetary nebulae, with NGC 7293, accompanied by a large ring of gas, a near neighbor at 85 lightyears.

With such troublesome and potentially violent neighbors—and with so little knowledge about what makes supernovae explode—it is not impossible that a nova or supernova might fry us all. Not likely; but what is unlikely over a period of a billion years? We observed one, fortunately at a healthy range of 4500 lightyears, in AD 1054. Its remains are visible, a shell of gas 6 lightyears in diameter, with plentiful x-rays, gamma rays, etc.

The Chinese are said to have observed supernovae in 1006 and 1181 as well as in 1054. Tycho Brahe saw one in 1572, and Kepler another in 1604. And most such explosions may be concealed by interstellar dust.

Weiler, of the Max Planck Institute for Radioastronomy, distinguishes supernovae from dying *and* young stars. An explosion in our galaxy takes place every 20 to 30 years; a supernova blow-up within a dangerous range of Earth is likely to impact terrestrial geology and life every 100 million years (7).

Certainly the immense distances of space act as protective shields. Astronomers are not crying warnings. But over the time span of a billion years many things can and will happen. Weiler's paper implies that we will be threatened ten times by supernova explosions before we must leave the Earth.

Are new stars forming close by? Do we have large aging stars within a dangerous radius? This is the type of warning intelligence we ought to procure. We have the potential to live 100 billion years; we shouldn't want to be cut off in our comparative youth. Our permanent departure from this Earth may be required suddenly, and well before AD 1 billion.

Speculative answers to the Fermi Paradox ("Where are they?") include one fairly chilling possibility: Civilizations reach a certain stage and commit suicide. They blow themselves up, or otherwise alter their development.

Any rational projection of technology gives us that capability within a short time; or, alternately, gives us the capability to make

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our presence known throughout the galaxy.

In other words, there are reasons other than the daily newscasts for believing we are at a critical point in our history.

As we have said in other publications, this generation has the resources to start man on his journey out of the solar system. The costs have been estimated at various sums, but no estimate exceeds the cost of the Panama Canal: some 5% of the US budget over a period of fifteen years.

We believe we are on fairly safe ground in asserting that a vigorous program of research and development has a beneficial effect on US and world economics. Some economists do not agree; others seem to have ignored the entire matter. We have seen economic models in which investment is no more than a black box; it doesn't matter *what* you invest in, only the amounts are important. We reject that view, and assert the (to us) not unreasonable proposition that the sustained economic growth of the sixties was due in large part to the vigorous space program—a program which not only served as the cutting edge of technology, but had profound psychological effects as well.

Although this generation has the resources to move the human race upward to what amounts to a new evolutionary plane—space-dwelling man—it is not at all clear that future generations will be able to afford such an investment. We have a choice: we can believe we are mayflies, doomed within generations; or we can believe we have a future measured in billions of generations. Each belief leads to certain actions.

Assuming we act as a long-lived people, there are many things we can do.

First, we must acquire full knowledge of the solar system. There's a lot of matter out there, and we need to learn how to make full use of it. In part that's necessary for near-term survival; but it's also practice for the time when we'll have to abandon the solar system.

While that's going on, we can study the nearer stars. For example: if we embark on a real space program, something like solar power satellites as an example, then for literally trivial extra amounts we can orbit a telescope capable not only of finding planets at the distances of nearby stars, but also of studying their cloud structure.

We can study the Sun. As MIT's Philip Morrison is fond of saying, it's insane not to study the Sun.

Those are steps we can take. In fact, if we truly believe our racial

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lifespan is measured in tens of billions of years—and there is no reason to assume otherwise—then we can set down items that must be accomplished. We don't know how to travel between galaxies. We only dimly see how we might reach stars (although with present resources we could get a few of us to the nearer stars if we wanted to badly enough). But we can take steps toward both goals.

1. As stated, we decide to acquire full knowledge of the solar system, and begin study of the sphere within 100 lightyears of Earth.
2. Find optimal orbits of advance.
3. Search for vital resources within the solar system, and evidence of them beyond it.
4. Identify hazards and dangers, threats to future travellers, and threats to our present system and planet.
5. Build up bases and observation posts in space: the Moon, L-5 Colonies, satellite islands, major asteroids, nearby planets. Support these with transportation and communications. It is clear that within a decade we could, if we wanted to, have a colony on the Moon, supported by minimal shipments of food and biologicals from Earth. Within a hundred years such a colony could be self-sufficient.
6. Learn to use space itself: build industries using gravity gradients, extreme temperature differences, hard vacuum, asteroid and lunar mines; and learn to reap economic advantages from space. At some point the space program must become economically self-sustaining.
7. As we develop our capabilities for industry in space, we will inevitably learn how to build habitations. After all, in only a short billion years we'll *have* to leave the solar system; why not start developing the ability early? We might want to test it before we've no choices. . . .
8. While we're at it, we should experiment with artificial atmospheres.
9. Intensify the search for planetary bodies outside the solar system. This comes as a major bonus to the other activities, yet for space-dwelling man it might be thought the highest priority item of all. How many stars *do* have planets? Is Frank Drake's estimate of one star in 20,000 correct? Stephen Dole estimated some 50 inhabitable planets within 100 lightyears. All these estimates depend entirely on guesses. We have suspicions, but no hard data on the existence of any planets beyond our solar system.

The discovery of the first planet at interstellar distances will begin a new phase in man's relationship with space.

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Our future depends on our perception of the future. If we are convinced that we have but a short time left, then anything we do will be in vain—and we will do little. Yet if we see mankind as a species barely out of the cradle, with an unimaginably long future ahead, we can act to make that vision a reality.

If we want, the stars are no limit at all, but steps toward a long and interesting future.

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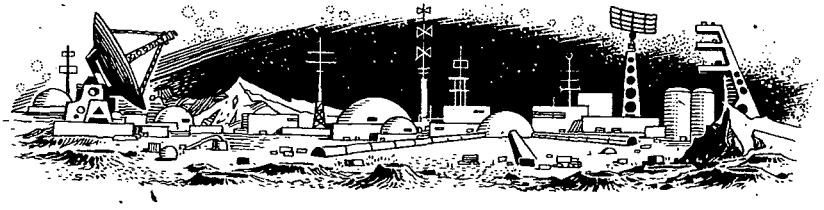

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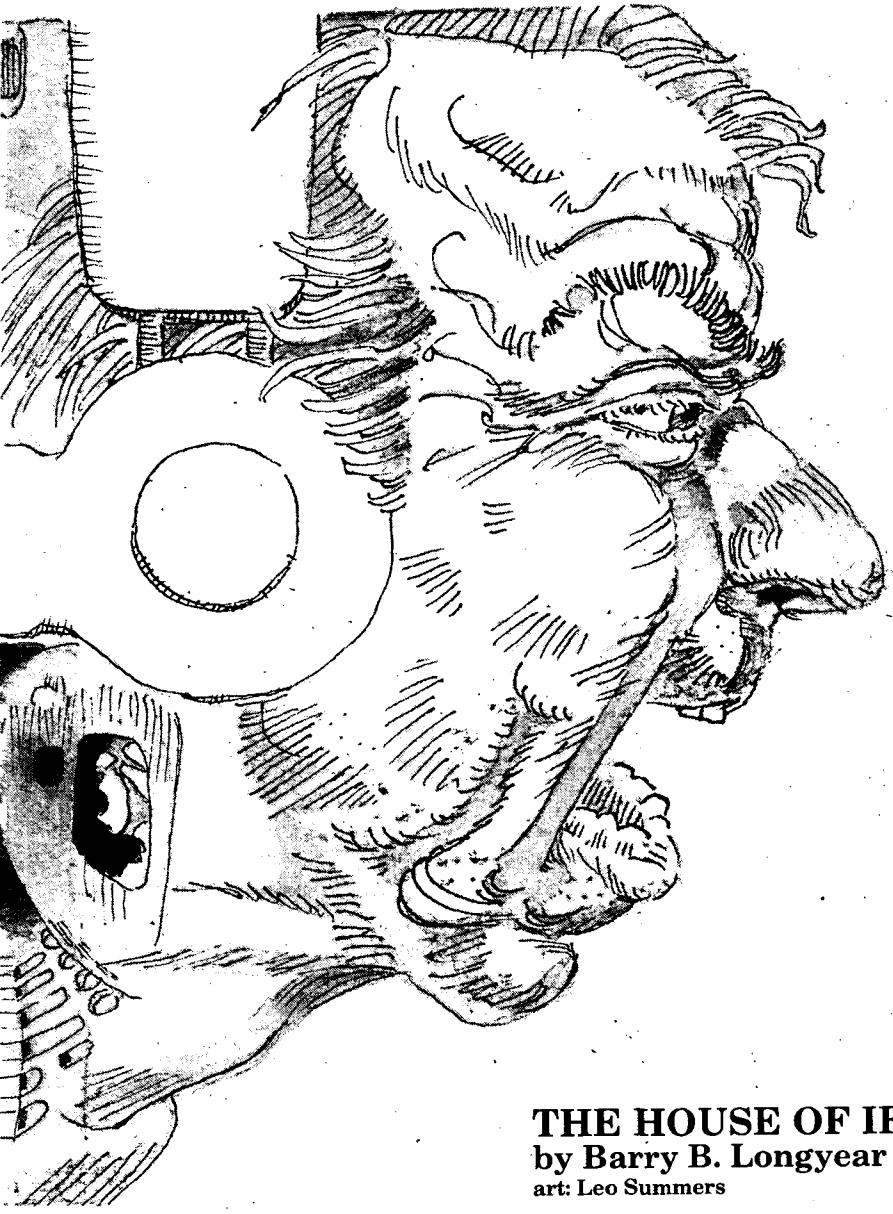

THE HOUSE OF IF

by Barry B. Longyear

art: Leo Summers

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Mr. Longyear recently completed a book for beginning writers: Science Fiction Writer's Workshop-I.

. . . A vague swim of colorless walls. The shadow of bars; but no door, no window, no bars—just the shadow. The sounds of footsteps, but no floor, no boots, no feet—still the sounds. I tried to push my hands forward into my vision. I reached, stretched, strained; but no wrists, no fingers, no hands—only the reaching. I opened my mouth to scream and heard silence—

I AWAKENED WITH A START, my eyes still shut. I was lying on my back; a hard, cold surface under me; my heart still pounding from the nightmare. The nightmare: part of me, or part of Krenmyer's lockup? I felt the surface beneath me with my fingertips. It was smooth. My eyes opened and in the dim, sourceless light I could see four gray, featureless walls. The walls were only as far apart as it took for me to stretch out full length on the floor. The ceiling extended to infinity. I laughed.

"Krenmyer! Krenmyer, can you hear me? I hope you can, because you blew it again. I hope the audience can hear me, too. This is no prison. I recognize it. It's my secret nook—my childhood hideout. Do you hear me, Krenmyer?"

I listened. Silence. I sat up, then pushed myself to my feet. "Krenmyer, can you hear me?" I listened again. Nothing. I chuckled, moved to the closest wall, and felt its surface. Smooth. Not a bump; not a crack. This was it, all right. My prison. My imaginary prison; the tool shed in back of the house. In a few minutes Aunt Pam would call me to lunch and I would curse her for popping my bubble of fantasy.

I stood back from the wall as icy breath touched me. The tool shed walls were rough-sawn planks. These smooth, impenetrable walls were creatures of my childhood imagination. I walked around the walls, touching, examining all four. I looked up at the endless height of them and closed my eyes. Little Marty Colter sneaking into the tool shed; jeans and jersey transformed into prison grays; the shed into the impossible lockup; the boy into a tragic figure condemned for eternity. I hung my head, felt the tears on my cheeks, and whispered:

"Damn you, Krenmyer. No one should be allowed to know that much about another human."

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I placed my back against the wall and slid down until I was seated on the floor. I rubbed my eyes, then looked at the walls again. So even then—ten years old—this was my abstraction for the word "prison." I started to laugh, but stopped short. Not just prison; little Marty Colter used to serve time in an *escape-proof* prison. No doors, no windows, no guards to bribe, no way out. Nothing to do but endure.

"I still have to eat, Krenmyer! How is the food going to get in?" I folded my arms, stretched out my legs and crossed them as I began whistling *La Marseillaise*. The food had to get to me somehow: a guard entering; machinery; an opening of *some* kind. That was the key to my escape from Cárcel Ultima in Coahuila: if food can get in, word can get out; dreams, temptations, visions of wealth to underpaid guards, bribes. Then Martin Colter was on the other side of the walls while *mucho* jobs went down *El Toileto*.

I looked up. Perhaps the food would be dropped or lowered to me. I stopped whistling and began the process: strategy planning. It would be a poor excuse for an escape artist that couldn't outwit the imagination of a ten-year-old child. Perhaps they would wait until I slept to bring in the food. I leaned my head back against the wall and closed my eyes, my ears alert for the slightest sound.

After several minutes, my eyes opened as a thought slammed the back of my head. Little Marty Colter—through ignorance—had accomplished what Krenmyer and all the world's lockwatchers couldn't. He had designed an escape-proof prison. There would be no food. Food for little Marty came when Aunt Pam called and the fantasy ended. His prison had no provisions for feeding the inmate; there was no need.

I shut my eyes and nodded. There was no need to feed me either. After all, I would be in for only five minutes. *Five minutes. Twenty-five years.*

Sick terror.

"Krenmyer! Krenmyer, you sadistic bastard! *Krenmyer!*" I stood, ran at the opposite wall, and pounded on it with my fists.

"Krenmyer! Turn it off! Let me out of here!"

I flailed at the wall until my breath grew short, my arms heavy. I sank to the floor, weeping. I fought off the sleep as I sensed the outlines of the dream that awaited me. Irresistible tiredness engulfed me.

Logic sets do not a prison make, nor circuitry a cage. Omegon Maximum—was that only last night? I had busted Krenmyer's latest

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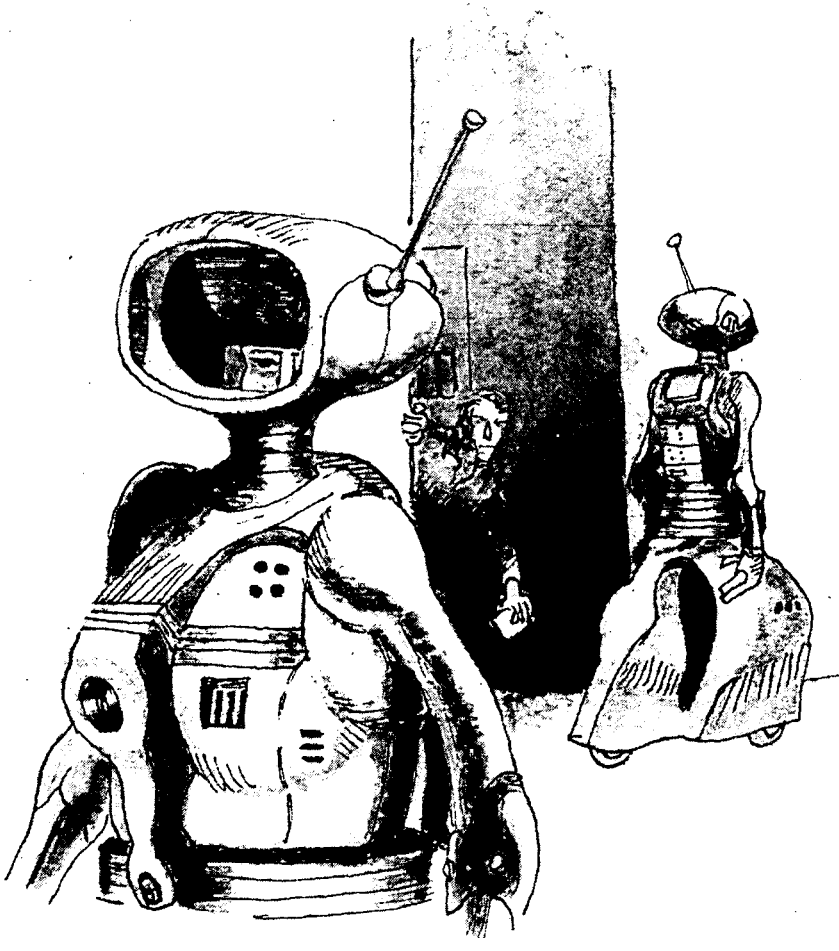

"escape-proof" facility in record time. Krenmyer's singular brilliance included some astounding blind spots, but the flaw in the Omegon system was laughable. In fact I was laughing so hard I almost foiled my own escape from Omegon Maximum Prison.

It *was* funny. The gates opened; the robotic guard with which I had exchanged psychotronic images sped out; then the psychotronic might of the Bureau of Corrections, North American Union, followed in a stampede of honks, whistles, and flashing lights. I almost dis-

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solved on my way to the staff compound after that hapless pile of machinery bellowed out to its pursuers: "Youuuuu, youuuu dirty rat! You'll nevah take me alive, coppah!" Then followed a beautiful fireworks display as eighty million credits worth of psychotronics blew the hell out of itself. The little speech I had planted in the robot's audio system was just a bit of fun; my sense of humor; me rubbing it in.

After borrowing the warden's flyer, I easily made my way through the constabulary's hastily improvised vector blocks, went into the city and registered at the Baltogrand Inn. I toured the shops, then with new clothes and a sumptuous repast, I attended a performance of the stage musical production *Thousandth Night*—all charged to my hotel chit, and that charged to the Bureau of Corrections.

Theater critics, especially those who had branded the 2009 edition of *Thousandth Night* "fluff" and "an evening's escape for the mindless," would have been confused had they observed me studying the wily Shahrazad as she postponed her execution by tantalizing King Shahriyar with written history's first known serialization. My rapt attention was not due to the company's below-average performance; I was absorbing the technique—the strategy. I was living the theme. As King Shahriyar abandoned his plans to execute Shahrazad and the curtain opaqued, my lusty "Bravo! Bravo!" was conspicuous against the indifferent applause of the rest of the audience. *No matter. The other patrons watched a bad musical; I witnessed an escape.*

I AWAKENED, on my back. I pushed myself up and leaned my back against the wall. A deep breath, then my eyes opened. Nothing had changed. The wall. I looked behind myself and examined the wall against which I was leaning. How could I distinguish one wall from the others? They were identical. The dim light illuminated them equally. I reached for my pockets—must find something to make a mark with. My hands went down the smooth coverings over my legs, then patted where my shirt pockets should have been. No pockets in little Marty's prison. "Jesus." I shook my head, then sprang to my feet.

"This is a simple problem, Krenmyer; with a simple solution."

I placed the pad of my right index finger between my teeth, bit, then tore the flesh. I looked at the blood, laughed, then went to the first wall and marked it with a single red dot. The next wall to the right: two dots. The next wall, three. The remaining wall, four. One,

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two, three, four. Orientation.

"And, now, Krenmyer." Time. How long had I been there? How to keep track of time? Mental time. Seconds. "One thousand, two thousand, three thousand, four . . ." My pulse! I reached for my wrist and felt for my pulse. The gentle, regular pressure against my finger. Heartbeat changes with activity, emotional state, health. But if I remain calm . . . no. My wrist—*my* wrist—was not in my *mind*. Neither was my finger. I looked at my right index finger and found my self-inflicted wound healed. No trace. I looked at the walls and the blood marks were gone.

I sat cross-legged in the center of the floor, placed my elbows on my knees and rested my face in my open palms.

"You are a hard warden, little Marty Colter." Why? Why, as a child, did I play at this? So long ago . . .

"Dish it out! I can take anything!"

The voice was high, strange, tinny. I opened my eyes . . . seated in the corner, a child. A boy dressed in prison grays. He was looking up at the nonexistent ceiling. Was that Krenmyer's machinery sticking things into my head? "You. You, boy."

The child looked at me. His eyes were narrow with controlled pain. "What?"

I licked my lips. "Who are you?"

The boy closed his eyes and rested his head against the wall. "I don't want to talk."

I studied him: unkempt black hair, muscular, a face bordering on ugliness . . . I crawled over, reached out a hand and grabbed his left arm. "You're . . . *Marty Colter!*"

The boy pulled his arm free. "What if I am?"

I squatted on my haunches and studied him. My pulse and finger might not have been in my mind, but little Marty was. "I'm Martin Colter."

"I know." The boy looked up again.

"Why are you playing this game? Tell me."

The boy looked at me, his eyes wide with surprise. "Game. This is not a game. You *know* this is not a game."

I pointed a finger at him. "You *know* it's a game! I remember all of this. This is the tool shed—"

The boy laughed. "Game? Ask Doctor Krenmyer if this is a game. Ask Krenmyer, Mister Martin Colter. He'll tell you."

I frowned. "You don't know anything about . . . Krenmyer. The game . . . it was different—fun."

The boy's eyes looked at me steadily. "I know about him because

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you know about him. And I know all about *you*."

"I *don't* know about you. Why the game? What are you playing at? Why are you playing at it?"

The boy hung his head, then shrugged. "I can't say the words." He looked at me. "I never could say them. But you're grown up; you can say them."

I moved to the opposite corner, sat down, and stared at the boy. He looked up and shouted, "I can take anything you can dish out! I can take it!"

"I can take it," I repeated as I looked at the boy. I looked up at infinity——

and saw through the boy's eyes—*my* eyes. I let myself flow into the image: sight, thoughts, feelings, time. *Defiance.* Defiance flung at unseen tormentors. Locked up and hid away; safe. Shout your defiance in the tool shed, Marty. No one will hear you except your fictional guards. But make them *real,* and make the prison real. Otherwise you're just being silly. But don't shout too loudly. Your *real* tormentors might hear you. Aunt Pam, Uncle Bill, their hulking cruel son Sean. For them . . . for them there is no defiance. You suffer abuse—humiliation, do this, do that, you are such a dumb boy, why can't you be more like Sean; fat, cruel, stupid Sean. You don't shout defiance—put everything on the line—for small things; unimportant things. If I'm to suffer, let it be important; for important reasons. Let the reasons be black-and-white. Let the occasion be something to rise to; *then* hear my challenge. I screamed at the nothingness above. "Pigs! I can . . . take it . . ."

I looked down and saw Martin Colter the adult—the so-called adult. His face was confused. What fiction had he constructed to make himself so confused? Marty Colter knew the truth. "That was the one thing you couldn't do, Martin Colter: you couldn't take it." I held out my arms toward the walls. "But here is your black-and-white context: here you are the oppressed, and they are the oppressors. Here the issue is clear, and there are no sneaking doubts. Here you *must* shout. You will suffer; but tragic heroes always suffer, don't they? And, here where it's important—here in this fiction—you can be brave. The game was never fun, Martin Colter; it was *important.* It stood between you and knowledge of your cowardice."

The man stood before me, weaving. He pointed a trembling finger at me. "You should *see* the things I have done. *Real* things——

in *real* prisons!" I caught my breath. I was back—looking at the boy. The things he had said—*I* had said . . . "You don't . . . you

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don't know what you are talking about! You don't *know!*"

The boy laughed at me. "*I know. I know. I know . . .*"

I sank to the floor, felt myself blacking out. The image of the boy faded. It went black, and I sensed coming at me . . . another dream within the nightmare.

After breaking out of Omegon . . . the next morning. The Bureau of Corrections building. I was immediately ushered into the Secretary of Correction's Office. The glass-walled, gaily decorated room was an ironic setting for the person whose task it was to keep almost three million humans entombed in living deaths. This was the office of the Secretary of Locks; the Chief of Despair; the Minister of Pain and Waste.

As I took my place at the conference table and surveyed the three faces surrounding it, I was reminded of my old friend Mark Twain's observation that man is the only animal that blushes. Or needs to.

The hottest blush was hanging on the thin face of balding Doctor Krenmyer, the Bureau's Chief of Psychotronic Research. The Omegon experiment was his third attempt to adapt psychotronics to the ignoble task of removing humans from the society of their own kind. Omegon was, as well, Krenmyer's third failure at the hands of Martin Colter: professional thorn-in-the-side. If the good doctor's looks could kill, the reports of *my* death would not have been greatly exaggerated.

As I crossed my legs and settled back in my chair, Krenmyer looked down toward his folded arms and concentrated upon the secretary's genuine walnut tabletop. It always does me good to find a fellow who appreciates fine woods.

Secretary Epps—trim, tacky, and transplanted hair—cleared his throat and nodded toward me. "I suppose, Mister Colter, you are to be congratulated on your escape."

I smiled and shrugged. "It was nothing."

Omegon's pig-fat warden glared at me, then joined Doctor Krenmyer in appreciating the tabletop. The warden's voice sounded as though the Hog Street Strangler was working on his neck. "That 'nothing', Colter, will cost the taxpayers almost a hundred million credits."

I drew down the corners of my mouth and shook my head. "Eighty million—tops." Smiling at that point would have been rubbing it in; hence, I smiled. "However, it might cost a few jobs." Again I shrugged. "When the Bureau hired me as a consultant on the Omegon project three years ago, I said the system wouldn't work. Now,

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of course, you know why." I faced Krenmyer. "I am disappointed, Doctor. You promised me quite a test." I rubbed my chin and looked thoughtfully at the overhead light panels. "Let's see . . . it took me—"

"Thirty-seven hours, nineteen minutes and eight seconds," Krenmyer completed.

"Yes. Thank you, Doctor." I looked at the secretary and raised my brows. "If that is all, gentlemen, I shall be on my way." I stood. Krenmyer was struggling with something. He started to speak, then clenched his jaws. I pointed at him. "I told you how I would do it three years ago, Krenmyer. Any fixed system of rules, electronic or otherwise, can be circumvented. Find out what the rules are, then invent a plan that the rules don't gather within their comprehension."

Krenmyer's neck veins stood out. "Colter, there *were* no fixed rules! It was foolproof. The system at Omegon was governed by random program."

I shook my head. "Doctor, Doctor. Foolproof means proof against fools. Convicts may not be moral giants, but neither are they fools. There is no such thing as a random program. The things called random programs *are* patterns. The patterns are unknown to their inventors; but they are still patterns."

Krenmyer went even redder; his eyes held murder. I was playing with him, and he knew it. "The program evaluation showed that no discernible pattern presents itself within six quadrillion digits. At six minutes per operational program, before you could have seen enough to detect a pattern, this universe would have turned to dust!"

"That was just one of the fixed rules, Krenmyer: a program change every six minutes. There was no necessity to detect any more of a pattern than that. The physical plant, the structure of the prison itself, was another fixed rule. My own neural pattern—" I nodded my head toward the father of psychotronics. "—psychotronic matrix if you prefer—is how the system identified me; just as similar patterns identified other prisoners and robotic units to the system. Another fixed rule. Need I go on?"

Secretary Epps leaned back in his chair. "Mister Colter, I think you owe us that much, in light of our investment in you."

I chuckled. "As unintentional as that investment might have been." I nodded. "Very well. The fourth fixed rule—the key—was the half-second time delay between program changes. Since neither you nor your machine ever knew what program was coming up, and since each new program might be faced with any manner of prisoner

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situation, you implanted a half-second delay to enable the system to evaluate and double-check current conditions before implementing each new set of operations."

Krenmyer pointed at me. "That was in the interests of both plant security and inmate safety."

I raised my brows. "Very touching. But what that amounted to, Krenmyer, was that the system was virtually shut down for half a second every six minutes. I developed a context that had my section's guard unit within arm's reach during each program change, then went to work switching psychotronic matrices with the guard. Do you require technical details?"

Krenmyer faced Epps. "Colter pulled the identity grid from the guard unit, then jumped the unit's detector to its backup identity grid—imposing his own matrix on the backup grid."

"Quite right, Doctor. In a manner of speaking, I put on a guard's uniform and walked through the front gate." I produced my most credible stage sigh. "I *had* hoped for something less hackneyed to show you, but I *was* in a rush. I have to do a talk show tonight to promote my new book." I put my hands into my coat pockets and rocked back and forth on my feet. "What I don't understand is why the guard units weren't armored. A ten-year-old child could reduce one of those robots to its component parts, given enough time and a bobby pin."

Krenmyer snorted, then fired a brief glare at Secretary Epps. Epps coughed and proceeded to admire his own tabletop. The secretary shrugged and glanced at me. "Since they are—or were—robots, it was not considered necessary to go to such extremes to protect them. It wouldn't have been cost-effective."

Krenmyer snorted again. "Cost-effective! I wonder how cost-effective the Corrections Committee will think eighty million credits worth of rubble is."

I chuckled. "I apologize if I am prodding an old sore, Doctor. But you needn't concern yourself. Armoring the guard units would have slowed me somewhat, but it would have made no difference in the end."

Krenmyer slapped his open palm upon the table top. "Damn you, Colter!" With the same hand he made a fist, then pointed a finger. "You have destroyed the work of . . . *twenty years*! Do you have any conception of what this will do to psychotronics as a science? This was just the first step. The contributions it could have made in other areas—"

My smile evaporated. "Doctor, *I* did not make caging humans the

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first application of your scientific child; *you* did."

Krenmyer stood abruptly. "The Bureau of Corrections provided my funding!"

"Doctor, perhaps you should have been a bit more discriminating about what you used the money for. As they say, the difference between a whore and a homemaker isn't from whom you get the money; it's what you do in exchange for it."

The look on Krenmyer's face as the scientist lowered himself into his chair was, by itself, worth the price of the trip. The warden turned to Epps. "Mister Secretary, can't Colter be held responsible for *any* of the damages? He's rich, and he's going to make plenty more because of this. When the Corrections Committee convenes—"

The secretary held up his hand. "When the committee meets, Bruddick, we are in for a roasting. The contract we have with Mister Colter relieves us of any responsibility in case of his injury or death attempting to escape; but it also relieves him of any responsibility in case of damage to government property, as well as in the event of injury or death to government personnel. It was a test of the system, and Colter lived up to his part of the contract."

Bruddick glanced at me, half-smiled, then addressed Epps. "Mister Secretary, under the Public Information and Security Act we *can* detain him for an indefinite period—"

I snorted out a harsh laugh. My involuntary outburst stopped the warden short. "In what, Bruddick? Detain me in *what*?" I looked at Epps. "Are you certain the bureau can weather two such embarrassments in a row?" Krenmyer again looked as though he were about to speak, but he remained silent, still looking at me. His stare gave me an odd feeling, but I dismissed it. Unvarnished hate is bound to give anyone an odd feeling.

The secretary glared at Warden Bruddick, drummed his fingertips upon the table, then folded his arms. "I suppose, Mister Colter, that you will announce this tonight on the Armand Starks Show."

I smirked. "Of course. We must all wend our ways along this economic coil."

Warden Bruddick hunched his shoulders. "Placing us in the most unfavorable light possible, of course."

"My dear Warden Bruddick, there is no need. *You* have already done that. All *I* will do is tell the story."

Bruddick looked at the secretary, then back at me. "What about my flyer? That's personal property, not government."

"It's as good as new and resting comfortably in the Baltogrand parking tower—along with the hotel bill. Good day, gentlemen."

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I bowed, left the room, and closed the door behind me. With my hand still on the doorlatch, I stood silently in the receptionist's office. It had been good; but not good enough. It was never good enough.

"May I help you, sir?"

I glanced to my left and saw the bland face of the young man who served as Secretary Epps's receptionist. *I snorted and marched from the office as I felt my face darkening with rage.*

I AWAKENED ON MY BACK looking up at the infinite ceiling. I let the feeling of the dream remain with me. "Of course it was never good enough." A common enough problem. I must have treated a thousand children and young adults whose erratic, self-destructive behavior was a simple manifestation of unexpressed pain; repressed frustration. They aim their hates at fictions, never admitting the truth—never admitting the real hate. All those children—all those frustrating hours trying to dig through the apparent to get at the true. But there were others.

I sat up. Stealie Boy Yokosuji, my cellmate before I escaped from Taiyaku Jima, was a classic case. I looked up and the wall in front of me was the cracked whiteness of my Taiyaku Jima cell. Looking back at me was Stealie Boy's handsome face; a single lock of his thick black hair dangling in front of his forehead.

"After I open door—very quiet—I begin to move chairs, tables. See, to clear path to door if I must run. If *papasan* wake up, Stealie Boy must run."

Another machine-fiction, I thought. Then the image faded. "No!" I closed my eyes and *believed.* Taiyaku Jima . . . Stealie Boy. I am in Taiyaku Jima, I thought. If I can . . . control these images—if they are *mine* to control . . . but, Taiyaku Jima: I can *escape* from there! I heard the sharp click of stone against wood. "You move, Colter."

I opened my eyes and Stealie Boy grinned at me. He pointed at the *go* board dotted with black and white marble playing pieces. He was, as always, winning. I waved my hand at the board. "I'm tired of this."

Stealie Boy tossed back his head and laughed. "Colter, you *always* tired when you losing."

"I'll get out of here."

Stealie Boy shrugged. "Maybe." He stretched out on his pallet, lit a cigarette, and blew a cloud of smoke toward the wire-sheathed cell

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light. The ceiling was four meters above my head—*this is Taiyaku Jima.*

I stood and went to the wall of bars that served as the cell's door. "I've gotten out of tougher places than this." I looked back at Stealie Boy. "You know something?"

"What?"

"You are stupid as hell."

He glanced at me, then laughed. "Colter, you put *self* in prison, and *I* am stupid?" He laughed again.

I pointed at him. "The homes you rob. You never make a big killing, and you always do it at night when the family is home. Always in the same district. Is that how you get your kicks? Risking it all for nothing? Why don't you at least knock over houses when the families are away at work or on vacation?"

Stealie Boy shrugged and blew more smoke at the ceiling. His black eyes studied the ceiling for a moment, then——

I smiled and looked at the funny round-eyed Colter. "No fun."

Colter squatted next to my pallet. "Stealie Boy, you're a bright kid—smart."

"You just tell me I stupid." I waved my hand at him and turned to the wall.

Colter sighed. "You're ruining your life, that's why."

I turned back and sneered at him. "Become monk and tell to Buddha."

Colter pursed his lips. "Look, you could be doing better—even as a criminal."

I sat up, pointed a finger at the round-eyes. "I folk hero. Me." I stabbed a finger at my chest. "Me they write stories about. On street they greet me with respect. Even who I rob. It kind of honor to have Stealie Boy rob you."

Colter shook his head. "Somewhere there is a reason why you do what you do. If you can find—"

"You, Colter. You do same thing. You do same thing . . ."——

I . . . I was back looking at Stealie Boy. "You do same thing and cry at me to do different." He waved a hand in disgust as he stretched out again. "You sick, Colter."

I shrugged and moved to the cell door. It was Stealie Boy's life; let him screw it up any way that amused him. In a few moments the block trustee will bring the food—and the bar spreader. In a few moments I would be out—another story to tell—another prison embarrassed—another round of applause . . . for Martin Colter . . . folk

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hero. I felt the tiredness coming over me, but fought to stay awake. I *used* the bar spreader. That's part of how I busted out of Taiyaku Jima. I was awake for that. I have to be awake . . .

Stealie Boy's voice as I drifted off . . . "You do same thing, Colter. What your reason?"

. . . evening in my dressing room at the UBC's Baton Rouge studio; a makeup person assaulting my complexion with creams and powders while my agent, Jane Towzawi, bent my ear. "Cool it tonight, Marty, okay? Take all of the bows you want for beating Omegon, but lay off the needles. We're here to promote your book; not to grind your personal axe."

The makeup person's hand removed itself from blocking my vision, and I pointed a freshly outlined eye at Jane. She was entirely too pretty to be a walking anxiety attack. "Jane, we've been through this a thousand times. When I find a fool, I call him a fool. That's why people buy my books." The makeup person completed its chores, removed the napkin from around my neck, and exited. I looked at my image in the mirror. A gorilla anointed with a fresh layer of cosmetic jaundice. I looked back at Jane. "I'm certainly not selling books on my looks."

"*Or* your personality." Jane pursed her lips and looked at the television monitor. The screen was blank. "Just cool it, Marty. Three different jurisdictions have prior restraint actions on your book waiting in the wings."

I shrugged. "Waiting for what?"

Jane glanced at me, then turned back to the screen. "For you to smart off again. You have every constitutional right to be as nasty as you want, Marty; but every time you open your mouth, you make another judge somewhere more sympathetic to some government's argument."

I reached to my dressing table and picked up my bourbon and branch. I studied Jane for a second, took a sip of my drink, then lowered the glass to my lap. "You are acting very strange. Noricon Publishing beat down the prior restraint order here in North America. Why do you think the lawdogs will be successful elsewhere?" I studied her some more. "That isn't it at all. What's really chewing at you?"

Jane tapped her long nails against her chair's armrest. "You are, Marty."

"*I* am?"

Network test images appeared on the monitor and Jane swung

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her gaze in my direction. "Marty, I remember when you came to me after getting released from Helgavea Prison—"

I laughed and nodded. "That was some time ago—"

"You were different, Marty. A different person."

I shrugged. "We all were. Are you complaining about all of the money I've made for us?"

She shook her head. "You're different. Back then you were a hurt, angry man striking out to get the justice you deserved. Now . . ."

I waited, but when it appeared that she was not going to finish, I prompted her. "Now, what?"

She looked back at the monitor. A silent promo for the Armand Starks Show was running. The polished, wavy-haired Starks was depicted laughing without sound at an unheard joke. Jane stood, punched off the monitor, then faced me. "Now you are way beyond justice—or even revenge. You are . . . *obsessed.*"

I downed the rest of my drink and placed the glass on the makeup table. "Am I?"

"Yes. And your obsession is feeding an ego about five times the size of this planet—"

"That's enough!" I took a deep breath, then smiled. "Jane, I am making both of us a lot of money by busting out of this world's lockups; *and* by needling the bureaucrats who build all of those stone monuments to stupidity. Yes, I have a case against prisons—against the *concept* of prisons." I held out my hands. "How much money do you think you'd make off of me if I went back to being a psychotherapist?"

"Probably nothing, Marty. And that's not because there's not a market for work in that field; it's because you *can't* go back now. You're too crippled—"

"Now, just a damned second—" The ringing of the dressing room phone cut me short. Jane picked up the handset.

"Yes? Mr. Colter's dressing room. . . . Yes, Mina—" Jane covered the mouthpiece and looked at me. "Mina Jeffer, the producer." She uncovered the mouthpiece. "Yes . . . I see. . . . It seems unlikely, but I'll ask him. Hold on."

"What is it?"

"The producer wants to know if you'd object to going on with a representative from the Omegon Prison project."

I chuckled. "Who is the masochist?"

Jane asked, then looked back at me. "Erid Krenmyer. Doctor Erid Krenmyer."

That odd feeling washed over me again. I frowned, rubbed my

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chin, then pointed at Jane. "What for? Is he showing up for talk, or what?"

Jane spoke into the mouthpiece. "What's the drill on Krenmyer's appearance?" I watched my agent's face as she listened. Her expression didn't change, but her skin became pale. She covered the mouthpiece. "Marty, don't do it. Krenmyer is up to something. He has equipment with him; a prison—he says—from which you cannot escape. He wants to demonstrate it on the show."

I laughed, but couldn't shake that odd feeling. I may have made Krenmyer look like a fool, but a fool was something he wasn't. But what kind of portable prison could he have devised that could be demonstrated during the twenty-odd minutes I would be in front of the cameras? He had presented himself at the door, equipment in hand. He must have been fairly certain that I would consent to the demonstration. That odd feeling grew stronger; it was the suspicion that Krenmyer knew something about me that I would prefer he not know. I shook my head, then nodded at Jane. "If he has an escape-proof prison, I wonder why it's only now making its appearance? Okay, Jane. If Krenmyer wants to make himself look silly in front of sixty million viewers, I'll help out."

"It's dangerous, Marty. What if he makes a fool out of you?"

I looked at my hands. They were white-knuckled into two fists. I relaxed them and looked up at my agent. "That *is* the test, isn't it?"

"You don't have to do this."

"Go ahead. Tell them I would be happy to share the spotlight with the good doctor."

"Marty—"

"Go ahead." As Jane talked to the show's producer, I geared myself with my own brand of hate—*a mantle of icy loathing that brought all of my faculties to bear. To escape; to win; to squash like an insect Krenmyer and all that he represented.*

I AWAKENED, BACK AGAINST THE FLOOR, eyes looking up at that endless ceiling. I sat up, pulled myself to one of the featureless gray walls, and leaned against it. I had escaped from Taiyaku Jima before. Why didn't I this time? Because it's not Taiyaku Jima? Because it's all in my head?

"Obsessed, am I?" I closed my eyes and rested the back of my head against the wall. Jane Towzawi. I could hardly remember my first meeting with her. I had blood in my eyes—anger. I was out to settle

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Helgavea's hash. Jane was a means toward serving that end.

I opened my eyes and looked again at the gray walls. Time. "How long a time lies in one little word." The Bard. Richard the Deuce. The prison library's copy at Helgavea had that line marked. It had struck a chord in some long dead or forgotten con, and he had taken a pencil, marking the line with a bold stroke.

Time. Five minutes; twenty-five years. Krenmyer had sentenced me to twenty-five years; in front of everyone.

I thought back to the library at Helgavea—my sanctuary. My door; my fantasy escapes. I knew I could open my eyes and see that room. I could see Martin Colter, new fish, bending over a book. What did Jane say? I was different then. Different how?

I opened my eyes. I looked up from the book in my hands and saw the library. The only other person was the librarian—a lifer named Stack. Mass murderer. Stack stopped next to my table. "You, fish. I gotta close in ten minutes. You can check out the book if you want." Stack frightened me; all the cons frightened me. Brutes. Yet you cannot survive being anything less.

I closed the book and looked at the cover. *Huckleberry Finn*. My old friend Mark Twain. I thought for a moment. Mark Twain *had* become real to me—had become my friend at Helgavea. Twain, Dumas, Hugo . . . they wrote about lockups; fictional characters playing my game—my game that had suddenly become my reality.

That was the terror of Helgavea: my fiction had become my reality. A combination of clerical errors, a computer malfunction, a misidentification, the slow grind of bureaucratic gears, and Martin Colter found himself in prison. Unjustly. All conditions met, except one: the issues weren't black-and-white. I endured, passive, waiting for justice to free me. And endured. For three years.

Stack tapped the book. "You wanna check it out, or not?"

"Yes." I stood and followed Stack to the small desk near the library entrance. He entered my number into the terminal, then took the book from me and passed it over a sensor coding plate. He handed the volume back to me.

"Damage that book, fish, and I come for you personal and rip out your guts." A sour taste came into the back of my mouth. I took the book, made my way through the gleaming white corridors, the rumble slam of security control gates, up into the galleries.

Back in my tiny cell I looked at the part of the story the book had been open to in the library. That constant hard knot of fear left my guts. On the north side of the hut near the ash-hopper Huck Finn and——

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I . . . Tom Sawyer . . . arguing about the method we should use for liberating Jim—the slave.

Huck looks at the window-hole, one board nailed across it, then he looks at me and says: "Here's the ticket. This hole's big enough for Jim to get through if we wrench off the board."

I felt disgusted at my friend's lack of imagination—his poverty of romance. I say to him: "It's as simple as tit-tat-toe, three-in-a-row, and as easy as playing hooky. I should *hope* we can find a way that's a little more complicated than *that*, Huck Finn."

Huck scratched at his head. "Well, then, how'll it do to saw him out, the way I done before I was murdered that time?"

I nodded. "That's more *like!* It's real mysterious, and troublesome, and good." I thought some. "But I bet we can find a way that's twice as long—"

Stealie Boy looked up from his pallet and laughed. "You call me stupid! Colter, you are crazy!"

"Huck . . . what did you say?"

"I didn't say nothin'." His eyebrows went up. "Tom, is it the witches Nat said about? Voices?"

"What . . ."

Little Marty Colter sat in the corner of the tool shed. He stopped crying long enough to create his escape-proof cell.

"Tom, I don't see no need gettin' all balled up with tunnels, saw blades, mournful inscriptions, and such. Let's just wrench off the board!"

"Hesh up, Huck Finn! You got no more . . . romance'n a fence post."

"It's plain dumb, Tom."

"Just shut the hell up, okay? *I'm* running this show!"

"You are an idiot, Colter."

"God damn you, you simple-minded—"

—It swam. All of it distorted, swam, became dark. Stealie Boy laughed and laughed. "You are crazy!"

As I walked on stage and shook hands with Armand Starks and his previous guest, comic Tabby Glennys, the studio audience gave me a standing ovation. The applause and cheers rocked the building. I bowed and nodded toward the audience, then took my seat in one of the empty chairs in the half-circle indicated by my host. The applause lasted for a full minute after I sat down. After concluding the opening banalities, Starks looked over the studio audience, then faced me. "Well, Martin—I may call you Martin?"

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I nodded. "It's my name."

Starks waited for the audience's polite chuckle to end. "First, congratulations on your most recent escape—" More applause. "It seems that to a lot of people you are something of a folk-hero."

"I think it's more a case of most people understanding that prisons are expensive antiquities. Factories for misfits and institutionalized cruelty."

Starks smiled and raised his brows. "I think your remark sounds familiar. It wouldn't be from your new book, *Chainbreaker,* would it?"

I nodded. "It would."

Tabby Glennys placed her hand upon Starks's arm as she faced me. "Excuse me, Armand, but I've been simply dying to ask Mister Colter a question ever since I read his first book." Starks held out a hand toward me, and I looked at the comic. Her frizzed-up hair and outlandish makeup disguised what I sensed to be a very sharp mind. "Mister Colter—"

"Marty."

She smiled, but a strangeness was in her eyes. "Marty, then. Marty, if prisons are what you say they are, what are we supposed to do about criminals?"

"As with any disease, it makes more sense to prevent it rather than wait for it to happen and then try to cure it. This is one of the things I am trying to demonstrate through my little escapades."

"I see. According to your first book, you were imprisoned unjustly for three years in England."

"Yes. Helgavea. I was imprisoned awaiting trial on charges of subversion. The trial never took place, and I was eventually cleared of the charges."

She leaned forward, elbows on her knees. "And then you had yourself *put back* in Helgavea?"

I nodded. "I wanted to prove that I could have escaped from there had I wanted to." I pointed a finger at her. "Three years had been snatched from me, my career was ruined, and all I got in return was an apology and two hundred credits."

Starks held up his hand, then dropped it to his lap. "Marty, If you were cleared of the charges, why couldn't you continue your career? You were a psychotherapist, weren't you?"

"Yes. I worked with disturbed children. However, parents are reluctant to have an ex-con treat their offspring. Because of my record I couldn't even get a job as a therapist with the prison system."

Tabby Glennys cocked her head to one side. "And so you had a

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score to settle."

"That's right."

She nodded. Somehow she didn't seem very funny. "In the six years since the publication of your escape from Helgavea, there have been no appropriations for new prison facilities in that system. The eleven bond issues that were attempted all failed."

I raised my brows in surprise. She seemed remarkably well informed. "That is correct. I consider that one of my biggest victories."

She leaned back in her chair. "Mister Colter, my mother was assaulted in that same district two years ago. Four months ago she died from the beating she took. I wonder how much of the responsibility for her death is yours."

Armand Starks's face was bright red. His professional veneer leaped upon his face through sheer will, and he laughed. "I understand *now* why Tabby wanted to appear on the show with you tonight."

Tabby Glennys shook her frizzy head and mugged at the audience. "I've been found out!" When the laughter died, her mask was firmly in place. Mine came off.

"The responsibility lies with the fellow who did the crime, as well as with the bone-headed officials in that district who failed to take the necessary steps to prevent the crime. It is true they have stopped building new lockups, but they simply use that as an excuse for budget cutting. They refuse to put that money where it would do some good in *preventing* crime: police protection, mental research, economic rehabilitation—"

The comic held out her hands. "Well, excu-u-u-u-u-se me!" More laughter. I leaned back in my chair and made an insincere attempt to laugh with the audience.

Armand Starks faced the cameras and audience and held up his hands. "A truce, you two. Right now, folks, we have a surprise guest. While Marty was busy last night opening doors at Omegon Prison, our next guest was one of the boys trying to shut them. The Chief of Psychotronic Research at the Bureau of Corrections, Doctor Erid Krenmyer. Let's give him a big hand."

A brief roll of lukewarm clapping passed as Krenmyer made his entrance and shook hands with the host. As I shook hands with him, I noticed with amusement that Krenmyer was wearing a new suit. We all sat down and Starks continued. "Now, Doctor, Marty's escape from Omegon would seem to put you and the gang at Omegon in something of a bad light."

Krenmyer glanced at me, then looked at Starks. "It would appear

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so." He looked uncomfortable under the bright lights, and even more uncomfortable as Tabby Glennys mugged again at the audience. But there was something . . . about his eyes. Krenmyer had an obsession of his own. I felt that—in some manner—the scientist had thrown caution to the winds to be in that chair . . . to get at me. "Unfortunately . . ." The laughter died out. "Unfortunately psychotronics will be tarred with the same brush."

Starks nodded. "As I understand it, Doctor, you feel that the Omegon experiment was an unfair test of psychotronics' capabilities."

Krenmyer cleared his throat and nodded. "Yes. There were many restrictions imposed on the use of psychotronics at Omegon. There were cost considerations, and . . . some constitutional problems."

Starks rubbed his chin, then waved a limp hand in the air. "Is psychotronics a form of mind control? I don't want to be simplistic or to brand it with a label. But aren't the mind-control aspects of your discipline why there are constitutional questions?"

The doctor clasped his hands over his belly. "Yes. With the appropriate hardware, we have the ability to detect and identify neural matrices—human thoughts. We also have the ability to alter and implant matrices."

"You can put . . . thoughts *into* someone's mind?"

Krenmyer nodded, then shrugged. "That is where the constitutional problems arise. The Corrections Committee felt that the active use of psychotronics would be an invasion of privacy. That is why the Omegon project was limited to the use of passive techniques. Psychotronics was used solely as a means to identify and locate individual prisoners. The rest of the system consisted of robotics."

Starks nodded. "I see. And you contend that the use of active psychotronic techniques would be more effective."

"Yes. Less expensive, as well." Krenmyer looked at me. "I agree with you, Colter, that those stone monuments as you call them are obsolete; but prisons are not. There will always be those who need the lesson of time—"

"Guilty or not," I interrupted.

Krenmyer glared at me. "Colter, with the use of active techniques as a perception detector, your innocence could have been established beyond a question of a doubt. If we could use active techniques, you never would have had to have spent a day in Helgavea." He turned back to Starks. "But that, too, is an invasion of privacy, as well as an infringement on one's guarantees against self-incrimination. The technique can establish guilt as well as innocence."

I smirked and looked at Krenmyer. "It sounds like what you have

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is nothing but a glorified polygraph. What if the subject did commit the crime, but believes he didn't?"

Krenmyer smiled. "Memory can be suppressed, Colter; it cannot be erased." He turned to Starks. "Psychotronics is advanced to the point where we can identify psychic fact from fantasy. With the proper psychotronic analysis I could know more about you than you do." He looked at me. "For example, just through the passive technique used at Omegon to set up Colter's identity grid, I learned enough about him to know that he couldn't refuse to accept my challenge tonight. I claim to have a prison from which he cannot escape. He doesn't believe that—cannot believe that—and remain sane. Martin Colter is a very sick man."

I forced myself to join the audience's laughter. When the studio quieted down, I looked at Krenmyer. "If you have such a prison, why don't you use it?"

"It employs active psychotronics, Colter. I am forbidden to use it. However, there is no law that says I can't demonstrate it—as long as the subject of the demonstration freely consents."

Starks rubbed his hands together. "And you have your equipment set up behind the curtain, Doctor?" He faced me. "And you agree to test it, here, on stage?"

I thought for a moment. Dark, dangerous shapes seemed to be hovering behind me. By putting on the demonstration—probably without the permission of the Bureau of Corrections—he was ruining his own career. Krenmyer would look the fool if I refused right after his declaration to the world that I *could not* refuse. The question that had me licking my suddenly dry lips was: could I refuse? I studied Krenmyer's face. In the past I had seen him frustrated, embarrassed, and helpless with rage. This was the first time I had ever seen him look . . . smug. The studio was uncomfortably quiet. I looked at the faces in the audience. Of course they wanted me to accept. But accept what? A try at escaping from a ten-minute prison sentence? I shrugged. "Very well. I accept."

As the cheers and applause began to wane, Armand Starks introduced a commercial, then stood and faced us as the show's theme music began and a shadow behind the lights waved. "This is terrific! What a show!" He pointed toward a curtain. "If you gentlemen will move over there we can get set up before the break ends."

Tabby Glennys waved a hand at me. "Dearie?"

"Yes?"

"Break a leg."

I smiled. "Thanks."

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"No, dearie. I meant *break a leg.*"

I stared at her for a moment, then shook my head and followed Starks and Krenmyer to the now open curtain. On stage were three chairs, a simple table, and on the table a silver metal suitcase. Starks glanced at his watch and ran off to say a quick word to one of the shadows behind the lights. Krenmyer smiled at me. "You couldn't refuse, you know."

I laughed. "I could have refused, Krenmyer. But I'll make a bigger fool out of you this way." I put on my best sneer. "You know you're casting yourself as the mad scientist, don't you?"

Krenmyer looked at me steadily. "Angry, Colter. Not mad; angry."

Starks returned and motioned me into one chair, Krenmyer into another, while he sat in the third and faced the cameras. The show's theme music faded and another shadow waved. Starks smiled. "We're back, and tonight we have with us escape artist Martin Colter and the Bureau of Correction's Chief of Psychotronic Research, Doctor Erid Krenmyer. We are about to do a little experiment." He faced Krenmyer. "Doctor, perhaps you could explain to our viewers a little about what we will be seeing."

Krenmyer crossed his legs and chuckled. Life in front of an audience appeared to be growing on him. He reached out his left hand and touched the metal suitcase. "Unfortunately, all that we will see is Mister Colter taking a little nap. To *him,* however, that nap will be at least twenty-five years in prison."

The audience gasped, then became very quiet. Starks frowned. "I'm not certain I understand, Doctor."

Krenmyer stood and talked as he placed the suitcase on its side and opened it. "It's simple, really. The things we call dreams are time-distorted. A dream that lasts only a second can seem to the dreamer as if it lasts weeks or even a lifetime. This is because the only time reference framework the mind has is itself." He patted the suitcase. "This provides the mind with a time reference; one minute equals five years. We will see Colter nap for five minutes; he will see himself, in prison, for twenty-five years." Krenmyer faced me. "And you will live and suffer through each and every day of that sentence, Colter. And there will be no escape because this prison is your *mind.* This equipment regulates your time reference, and it also locks in your dream premise. You will be in whatever your mind calls 'prison.' "

Starks looked uncharacteristically troubled. "Doctor . . . what kind of prison will he see?"

Krenmyer shrugged as he adjusted a few dials inside the case,

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then inserted a magnetic card into a slot. "Right now I have no way of knowing; to learn that would take rather extensive analysis. But it will be a prison, I assure you. He can tell us about it after he is released." He smiled at me. "Twenty-five years from now."

I looked at the panel of dials in the suitcase, then up at Krenmyer. "What constitutes escape as far as you are concerned?"

The scientist pointed at a simple toggle switch. "All you have to do, Colter, is get up and turn off that switch." He looked at the audience. "Martin Colter has told me several times that any fixed set of rules can be circumvented. All one has to do is find out what the rules are, then devise a plan that the rules do not gather within their comprehension." Krenmyer faced me. "Here are the only rules in this system, Colter: a minute is five years; prison is whatever your mind calls prison; to escape you have to turn off this switch."

Starks leaned forward. "Marty, are you sure you want to go through with this? It was a last-minute thing—"

Krenmyer waved a hand. "He is sure, Mister Starks. Colter *can't* pass up a challenge like this." Again Krenmyer faced the audience. "While we are watching Martin Colter serve his sentence, here are a few things about which to think. This piece of equipment cost under three thousand credits to produce in prototype. The per unit cost would be much lower with mass production. And it will take only five minutes to execute a sentence of twenty-five years. This requires a minimum of government facilities, and only a few moments of the prisoner's time. Including overhead, it would cost the government only twelve to fifteen credits to administer a twenty-five year prison sentence instead of the several hundred thousand credits it now takes. The prisoner is out only a few minutes of real time; hence, he goes back into society—lesson learned—and resumes his economic life. Next to nothing in cost, and the convict never becomes a burden upon the rest of us. And it is escape proof. The ideal solution."

I felt a moment of nausea—of panic—then anger flooded my mind. "That always assumes, Krenmyer, that I can't escape from it."

He smiled, his hand hovering above the switch. "We'll see."

Starks glanced at one of the shadows, then looked at me. "If you are certain—"

"I'm certain. Let's get on with it."

Starks looked at the suitcase. "Doctor, don't you have to attach something to Marty? Wires or something?"

Krenmyer shook his head. "No. To program the equipment a psychotronic grid would have to be prepared for each individual pris-

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oner—a matter of a few minutes—but I already have Mister Colter's grid from the Omegon experiment. All I need to do is to energize the equipment. It will do the rest." Krenmyer grinned at me. "Then all you have to do is escape." He turned back to Starks. "I'm ready."

Starks looked at me. "Marty?"

I looked at my white-knuckled fists resting upon my lap. Many times in Helgavea cons told me about the voice. A voice that told them they were about to commit an act that would end their lives, crush them, change them forever. A voice that, had they listened, would have saved them. But none of them ever listened because none of them could. Pain and death had shown their hands, but the cons swatted them aside and killed, maimed, or stole regardless of the consequences. Because . . . because it was something that *had* to be done. I looked up at Starks, then looked at Krenmyer. "I'm ready."

Krenmyer smiled, nodded, then threw the switch.

I AWAKENED ON MY BACK, those gray walls, that endless, beginningless ceiling.

I sat up and forced the panic to drain from me. "Rules, Krenmyer. It's always done with rules."

One minute is five years.

Prison is whatever my mind calls prison.

To escape I must turn off the switch.

"You held a kicker, Krenmyer; there is a *fourth* rule." I stood up and looked at the walls. How much dream time had I served? Only a few hours, yet I had fainted once and slept three times. Five times, including the first awakening, I had opened my eyes to find myself flat on my back, in the same position, in the same room. "You have me on some kind of closed loop, Krenmyer. That's it. Every so often you move me back to square one. Square one: that's the fourth rule."

Prison. Was there a flaw in rule number two? Prison is whatever my mind calls prison? Huck Finn and I were *outside* of Jim's hut. Jim was in the lockup; not me. Prison. What were my prisons?

I backed up against a wall and slid down it until I was squatting, still leaning against the wall. The books I read in Helgavea were my *escapes*— not my *prisons*.

"There are many kinds of prison, my dear child." The voice first, then the scrufty white-haired Abbé Faria was studying me. Abbé Faria; Edmund Dantès's teacher in the *Count of Monte Cristo*. I let Dantès's stone-walled cell at the Château d'If surround us. Faria

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held out his hands. "You *chose* this cell. Your mind escaped through a story from Helgavea to the Château d'If."

I rested the back of my head against the stone wall and examined the old man as he shook his head in amusement. "Faria."

"Yes, my child?" The abbé sat upon the bed, his hands in his lap.

"Did I choose the Château d'If, or did I choose you for a cellmate?"

The old man cackled. "Poor, poor child! Can you not speak to your own mind with truth? Can you hide from yourself here in your own head?"

I rubbed my eyes. When I opened them Faria was still before me, smiling. I pointed at him. "You . . . you are part of this—part of me. And Huck Finn, too. Both of you . . . laughing at me." I wiped my hand across my mouth. If this were true—

"We do not laugh at you, child; *you* are doing all the laughing. We are not real. You are the one who is real. Do you not find yourself amusing? What was your prison before Helgavea?"

"Faria, do you mean my childhood fantasy?"

"No. Don't you remember all of those children? All of those unhappy children?

Those unhappy children. Yes. I saw them. All of them surrounding me; their walls of pain, anger, frustration between me and their freedom—their happiness. As part of the therapy we would play . . . the House of If.

Faria cackled. "That was why you read *Count of Monte Cristo,* my poor child. In your ignorance, you thought Château d'If meant House of If."

I looked at the stone-faced girl seated in the chair in front of me. I spoke. "Your mind is a house, Connie. Everything in it can be rearranged, rebuilt. The tool you use is the word 'if.' "

Connie closed her eyes and shrugged. Her eyes opened again. "That's silly."

"Connie, what if you opened up that hard knot of pain you carry around inside of you? What if you opened it up and looked at it; found out what it is; what's causing it? Try it. Say 'what if.' "

The little girl sighed, then closed her eyes. "What if." Her voice sounded very bored.

"Good. What if Connie can see that pain. Say it."

"What if . . . what if I can see . . ." She shook her head, then looked at me with hate in her eyes. "But I *can't* see! *Won't!*"

"Try it again, Connie."

She made two fists, tears in her eyes—

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my . . . mouth in a pout. I looked at Doctor Colter. Stupid; hulking, Doctor Colter. I don't want to do this. I don't want to, but he forces me. I hate him. I hate him so much. "Don't you *care* that I *hate* you? I *hate* you for doing this!"

"I'm not trying to get you to love me, Connie. I'm trying to get you to see the things you have to see so that you can love yourself. Try it again."

"I hate you." I wiped my eyes with the backs of my hands, then stared at the floor. "What if I could . . . see? What of it? See what?" I wanted to run.

"What do you want to see?"

I half cried, half laughed. "What I *don't* want to see is Mom . . . Mommy. B-but . . ."

"Go on."

"What if I could see my mommy . . . I can. I can see her."

"What is——

she doing?" I sat back, startled at seeing Connie before me—knowing what she thought—knowing . . . what I thought.

Tears dribbled down Connie's cheeks. "She isn't . . . she isn't doing *anything!* She . . . Bobby she hugs and kisses. You should see *his* grades! Just passing. He's so dumb." Connie shook her head violently. "All A's. Mine are *all A's!* I handed her my card'n she didn't even look at me. Just held Bobby. All she says . . . says to me is 'That's nice dear.' "

"Connie, what if you could tell her how you feel?"

The child's chest heaved with sobs. "I can't *mean* it! I *can't!*"

"Mean what, Connie? Say it."

The girl shook her head, sobbed, and looked in my direction, her eyes filled with wet pain. "Mommy . . . Mommy . . ."

"Yes, Connie?"

"I . . . I *hate* you!" The girl ran at me and beat on my chest with her fists. "Hate you! Hate you! Hate you!" She screamed, then collapsed against me, crying. I put my arms around her.

"It's all right, Connie. It's all right . . ."

Faria cackled at me. Back against the wall; back in the Château d'If. "Oh, you foolish child. What a prison that was for you. The ones you could not help frustrated you; walls that you could not breach. The ones you *did* help you *resented.* Their walls were coming down, while yours . . ."

"Be silent, old man!" I closed my eyes and forced my way across the space that separated us——

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my eyes opened and they looked at prisoner Martin Colter seated against the opposite wall. I looked down at my hands: thin, scarred from digging, wrinkled with age. I felt the laughter coming out of my mouth as I looked again at Martin Colter. I spoke. "Now, child, you see the fool, do you not? Ah, the romance of the dungeon. But even the Château d'If was unsatisfactory."

Martin Colter narrowed his eyes. "What do you mean, Faria? Prison is a horror—any prison."

I held up a finger. "And that is its romance, Martin. This is a fine prison for you: a victim of unjust persecution, tunneling through walls, moments with a great teacher, *the escape!* We must remember the escape; *so* dramatic. Château d'If would have been your paradise had the guards inflicted white-hot pokers on your skin. Perhaps the rack?" I laughed at the foolish man. "So tragic; so pitiful; such a hero—"

Colter leaped at my throat, his strong fingers crushing the life from me. Such a foolish man. Even as my eyes went dark, my body racked with airless laughs——

Faria's lifeless body dropped from my hands. Before the old man fell to the floor, he disappeared. I looked up to see the gray featureless walls . . .

ON THE FLOOR, ON MY BACK. THE CLOSED LOOP. Square one.

Prisons. This . . . this was my first prison—no! The lockup created in the tool shed was my *prison of choice.* There was another . . . an earlier prison. In this prison I was innocent; in the other, I was vaguely, somehow, someway guilty——

The walls became hung with gaudy wallpaper. My fat hands were red and wrinkled from the steaming dishwater. I pushed a straggle of hair from my face, looked out of the open window above the sink, then shook my head as that little brat Marty came from the tool shed. I shouted through the window. "Marty! Marty Colter! You come in here this instant!"

"The brat glanced at me, then looked down as he hung his shoulders and heaved a big sigh. "I'm coming, Aunt Pam——

I rejected it as something sacrilegious. I was . . . looking through Aunt Pam's eyes! It . . . ——

I looked again at the boy and shook my head. Mercy, my back ached. I shook my head in exasperation. "I do not understand why Bill took that child in. I really don't!" I dried my hands and

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placed them on my monstrous hips as I faced the door. "And don't slam the door!" The boy came in the kitchen and began closing the screen door. He held the handle with his right hand and had his left palm against the frame. He was closing it very, *very* slowly. I stormed over, grabbed him by his shoulder and pulled him away from the door. "Smart aleck!" I reached out and pulled the screen door shut with a slam. I faced Marty; and he stood there, a hurt look on his face, rubbing his shoulder. "I didn't hurt you, so you stop pretending this instant!" His hand dropped to his side. "Well?"

He looked up at me, his face confused. "I . . ."

I pointed toward the door. "What are you doing out there all of the time! You haven't been getting into your Uncle Bill's tools, have you?"

He shook his head. "No. Honest, I haven't."

"Well, what were you doing?"

Marty shook his head. "I was . . . just playing. Honest."

"Humph! If your Uncle Bill finds out, you know what happens."

The boy's eyes grew wide. "Uncle Bill said I could go in the shed. As long as I don't play with his tools. *Honest.*"

"Don't you fib to me, Martin Colter." I shook my finger at him. "If you fib to me, you go to that awful state orphanage." I pointed at my chest. "We don't *have* to care for you. We're only letting you stay with us because your mother was Uncle Bill's sister." I grabbed him by both of his shoulders and shook him. "But understand this, Martin Colter: Bill loves your mother's memory, *not* you! It's our *duty* to take care of you, but that only goes *so far!*" Tears dribbled down his cheeks. Such a cry-baby. "Do you understand that, Martin Colter?" I shook him harder.

"Yes . . . yes, Aunt Pam. I understand. Please. *Please* don't send me away. I'll be good. I *promise!*"

I stopped shaking him, bent down and gave him a peck on his cheek. "Mind yourself, then. Now stop crying. No one has hurt you." I pulled a crumpled tissue from my pocket and dried his tears. Blubbering all the time, that boy. I pointed him toward the door and patted him on the behind. "Now you go out and play until I call for dinner. And you stay out of mischief, hear?"

The boy nodded and walked slowly through the door, not looking back. I shook my head and went to the stove. "Such an actor. Boo hoo, boo hoo." I lifted the lid on the big pot and stirred the pot pie with a wooden spoon. Bill still wasn't back from town. "If that man is late again, dinner will be ruined. Some people just don't give any thought to what others have to go through."

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I replaced the lid and went to the sink. I always try to keep up with the dishes while I'm cooking. If I don't, who will? I looked through the window and saw Marty sneaking into the tool shed. "That *boy!* I never!"——

I closed the tool shed door behind me. Motes of dust danced in the thin streams of sunlight that entered the shed through the chinks in the planks. I moved around Uncle Bill's workbench, stepped over the tangle of tools on the floor, then crawled around a large cardboard box and sat in the corner, my back against the wall. I closed my eyes. When I opened them, I was in the prison. The gray, featureless walls, the ceiling that extended to infinity. I lifted my fist and shook it at infinity. "Darn you . : . darn, you! Dish it out! Just watch me . . . I can take anything! Anything . . ."

I OPENED MY EYES. Square one. I sat up, ran my fingers through my hair, then placed my elbows on my knees and my face into my open palms. Prisons. There are *all kinds* of prisons. Shackles of guilt, withheld love, threats. I looked at little Marty Colter's prison of choice. Here he was not guilty. Here the issues were clear. Here he was still suffering; but he *knew* he was innocent; he *knew* they were evil; he had a *right* to scream at them, hate them, defy them.

I looked up at that endless ceiling. "They" were up there, somewhere in that malevolent nothingness. They. The forces of pain, oppression, and evil. Those little parts of me. Those unadmitted, unrecognized little parts. I would tell those unhappy, troubled children to take on those parts—become them; admit them; see them for what they were. I looked down again, and I sat before Doctor Sing's desk. That sour taste was in the back of my mouth——

before my desk was the next student. A heavy-set, muscular lad who looked more as though he should be going out for the football team than into psychotherapy.

I cleared my throat. "Name?"

The boy jumped slightly. "Colter. M-M-Martin Colter."

I smiled. "Very well, Martin. I am Doctor Sing, chairman of the department. I like to have a little chat with each of the students before classes begin." I studied him. Doesn't look very bright. The way he fidgets and looks around, one would think he was a hunted animal—or in jail. "Martin, why are you interested in psychotherapy as a career?"

He coughed. "Children. I want to work with troubled children."

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"I see." I brought his transcript up on the screen and studied it for a few moments. "You seem to have done very well in school." I looked at him. "Did you have many friends in school?"

Colter's cheek muscles twitched. Very defensive. Almost as though he were under attack. "No. Not many."

"Any?"

Colter's eyes narrowed. "No."

"I see." I pursed my lips and folded my arms. "Martin, a very high percentage of students who enter this work do so because they are, themselves, emotionally disturbed. I hasten to add that this is not necessarily bad. However, it is important that such a student be aware of his motivations."

Colter nodded. "I understand."

"Good. Now, why do you want to work with children?"

The student shrugged, but his eyes held the fright of a trapped animal. "I just do. There are plenty of children that need . . . help. I want to help."

I leaned back and tapped the armrest of my chair with my fingertips. "Is there something about your own childhood that motivates this? Some experience; some trouble?"

It was as though Colter had erected an impenetrable wall between himself and his pain. He laughed, shook his head, and relaxed. "No. No, Doctor Sing. I came here to learn how to cure; not to *be* cured." He shrugged. "Sure I had childhood problems. Who doesn't? But it was nothing out of the ordinary. I'm not carrying any scars."——

I looked at Doctor Sing. Silly little man; chalkboard academic. He must be dying to get someone on a couch—anyone. Just for some practical experience. I stood up. "Was there anything else, Doctor?"

Sing looked at the top of his desk, pushed a few papers around, then sighed as he looked at me. "There are so many of them. So many."

"So many what?"

"People. People and problems."

I frowned. The old boy seemed a little around the bend. He looked at his office window, then turned back to his desk. "Thank you, Mister Colter. That is all. Please send in the next student."

A lost feeling clutched at my heart. It was . . . a lifeline; extended, being drawn back. My vision thumped in and out of focus with my hard, rapid pulse. Doctor Sing looked up at me. "Is there something else, Mister Colter?"

"No." I walked from the office, closing the door behind me.

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Outside, on the grass in front of the building, I vomited . . .

RETURN TO SQUARE one.

A minute is five years.

Prison is whatever my mind calls prison.

To escape, turn off the switch.

I opened my eyes. The gray walls were gone; the floor, gone. Geometric flashes of shape and color whirled about me. I felt for something—anything—resistance. A wall, a limit. I clasped my hands together. They could feel each other. The shapes and patterns constantly swirled, swept this way and that, whirlpooled out of sight, then flooded down upon me. "What prison is this, Krenmyer!"

The shapes and colors flattened, dulled, settled around me forming a softly undulating horizon of rainbows.

Prison is whatever my mind calls prison.

"This is the key, Krenmyer . . ." Krenmyer. To beat Krenmyer. The wish, the feeling, the desire, the obsession—was different. I walked toward the horizon, a mist at my feet. *Prison is whatever my mind calls prison.* My semantic reaction to the word "prison" had changed. This. This was now my "prison." Above me was blackness sparked by tiny flashes of colored light. Beneath me and around my legs was the mist. Before me was the rainbow horizon. The distances were vast beyond comprehension. I moved more quickly. I did not want to escape from this prison; I wanted to—had to—explore it. This prison was the real one; the one it had always been; the one Krenmyer's machinery was tuned into. This prison was my *mind!*

A MINUTE, A YEAR, is of no importance.

My prison is my mind.

Escape is of no consequence.

Square one: I reach out my hand and touch the rainbow. Up comes my hand and a stream of blue crosses the blackness above. Within the blue, spots of green surrounded by bands of red.

Doctor Sing's image spoke to some part of me. "All thought is in symbols. We imagine a tree—see bark, limbs, leaves, rot. But what actually happens in the mind? Discharge thresholds are reached, chemicals react, colloids alter, patterns of connections are repeated, compared, identified by other patterns. Some of us symbolize in colors: red or black is pathologic, perhaps green or blue healthy . . ."

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The green surrounded by red. I bring the green to me. It is in there—what it is—

—M . . . Martin Colter. His hands wrapped around fat Aunt Pam's throat; her face purple; her sausage tongue protruding—

—reject it! The red fills my vision. The red points me away; points me toward . . . others. Aunt Pam is good, kind, generous. Just ask her. *There are thoughts you must not hold!* She will find out; she will know; she will get *even!*

The red: deception. Sing: "These thoughts. They are horrors, but to deny them is to deny yourself. Admitting that the thoughts are yours—are part of you—does not make the wishes, hates, desires things of reality. But admitting them is what you must do to make yourself whole. You can deny them, but your mind cannot."

I reject the red. I plunge into the green. It is there; her fat sweating neck beneath my fingers. I squeeze. Symbolic execution. "I hate . . . I hate . . . I *hate* you!"

I've said it. Admitted it. Felt it. Expressed it. It is me; a part of me. I release the pig's neck and stand. It, the green, fades. The red is still there, but is weakening. The hidden emotion that gave it its strength has been accepted; made a part of me. The red—hate for the prisons, for the prisoners, for their keepers. It fades.

I stood in the center of that mist, surrounded by the rainbow horizon, beneath that streak of uninterrupted blue. My hand rose and wiped the blue from the sky. I lifted my hand again. With it came another streak of green and red speckled blue. Each green an honest feeling; each red a fiction—a diversion to hide the feeling.

I brought them to me; the greens, the reds. The pains, the lies. The joys, the lies that forbade them to me. My hand rose again and again, crossing the blackness with colors, with pain, with lies, with happiness, with truth—

SQUARE one. I studied the horizon. No longer was it multicolored. Its blueness covered all. Here, there, a speck of green, a flash of red. I touched them, absorbed them, rendered them honest.

Peace.

This is my prison. This is everyone's prison. And it is me.

SQUARE one. All is blackness. It changed. What my mind calls prison changed. Within me were walls within lies within hidden pains, and they are gone. The horizon . . . there is no horizon.

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My horizon—my limit—is no more. Out stretch my hands, and forth come unnamed colors, shapes without form. I beckon to the shapes, unafraid; their blinding lights engulf me.

These are . . . the powers—the gifts we never see. Never use. Can never find. And my key is there, if I want to use it. To escape I must turn off the switch

No. Frame the rule: to escape the switch must be turned off—by someone, something.

SQUARE one. Prison is what my mind *calls* prison. What my mind calls anything is *my choice*. I can *choose* how I react, how I feel, how I think about anything. This is my special power as a human. Then. My mind can call any part of reality "prison."

I opened my eyes to see the audience frozen in rapt attention. Starks, a frown of cold iron on his face, staring at me. Tabby Glennys's concrete stare aimed at Krenmyer. Krenmyer, his hand still on the switch, smiling at me. I stood and moved next to the silver suitcase. I expanded my prison to admit Krenmyer.

He blinked, looked at Starks, the motionless audience, then at me. He said nothing, but I saw the tears in his eyes. "Krenmyer."

His chin rested upon his chest. "You have won, Colter." He moved his hand to cut the switch.

"*Don't!* Don't turn it off, Krenmyer."

The old man, eyes confused, studied my face. "But you have won. You have beaten me."

I extended my hand. "Come with me."

He stood, face contorted with fear. "What? *No!*" He held his hands in front of his face.

I reached out a hand and touched his arm. "You will come with me, Krenmyer."

SQUARE one. I stood at the center of my mind; Krenmyer at my side. He stared wide eyed at the endless black. A black not of color nor color's absence. A black of limitlessness.

Krenmyer grasped at my arm and stared at my freedom in terror. "Colter . . . what *is* this?"

"My prison. Now I will show you yours."

SQUARE one. Twisted, gnarled shapes; browns, grays,

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blacks. Krenmyer was rigid. I turned him around. In the distance was a small mound of stone slabs. "You are in there, Krenmyer. Even before you can reach here and touch your thoughts directly, you must break out of there."

The whiteness of his eyes stood out from the drabness of his colors. "You're . . . like the rest of them, Colter! Against me! Fighting me at every . . ."

I placed my hand on his shoulder. "I am not fighting you." I held out my hand. "Look at what you have accomplished, Krenmyer. You are so obsessed with proving your own worth through locking people up, you never saw what you had created."

"What?"

"This is you, Krenmyer. And I can guide you through this nightmare; helping you to end it." I called forth one of the blacks. It covered us.

"No!"

"Look at it, Krenmyer."

"No, no." He was there; young, intense, brilliant, unrecognized. If he, if he could just do better—better than all of them—if he gathered the honors, medals, he would be . . .

"Say it, Krenmyer! Say it!"

". . . loved." The black faded and was replaced by a tint of yellow. "Loved. Respected." Krenmyer closed his eyes. "By others, damn them. I wanted them, so much—" He held his hands to the sides of his head. "This is too much, Colter. Too much. You've won. *You've won,* damn you. Can't you leave it at that? Turn off the switch. *Let me out of here!"*

"Krenmyer, you still don't see it! With this we can solve . . . so many problems. We can go directly to pain, our lies, our hidden selves. We can know ourselves, and guide others through their own prisons. We can tap all of the power of the mind. That is what you have accomplished, Krenmyer."

Krenmyer held back his head. He frowned; stood silently looking at his colors. He lifted a hand and a blackness began to come closer. "No!" He forced it back, then looked at me. "You will turn off the switch, Colter. Then I shall be destroyed. I will be a laughingstock —once again."

I brought us back to the limitlessness of my prison. "No, Krenmyer. I will serve my time. You will have won. It is important to you, and it is nothing to me."

"Why? Why do you do this?"

I held out my hands toward the black. "There is much for me to

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do; to see; to learn." I looked back at the scientist. "You will not be embarrassed, and I will be happy here. But before my sentence is ended, I want you to think about the value of what you have created. I am wealthy, Krenmyer. I can support your work. Between us we can solve many problems."

I waved my hands, fading Krenmyer out of my prison. I turned around, picked a direction, and flew toward it, eager to see what was there—

I opened my eyes, looked at the audience, then turned toward Krenmyer. He withdrew his hand from the switch, looked at me, then closed the silver suitcase. The scientist held his hands to his face, then sat down in his chair. Armand Starks leaned toward Krenmyer. "Are you all right, Doctor?" Krenmyer nodded without removing his hands from his face. "Why don't you turn on the switch?"

Krenmyer lowered his hands. He stared at me. "I did. There seems to be something wrong with the equipment."

Snickers came from the audience. Starks held up his hand for quiet. "Isn't that the way? Now, folks, these things do happen."

Tabby Glennys looked crestfallen. She assumed her mask, then swung her gaze in my direction. "I suppose, Mister Colter, that you have some little snide comment to make."

I looked from her to Krenmyer. The scientist studied me. I turned my head and faced the audience. "I only have an announcement. I am retiring—" A big "Awww" of disappointment came from the audience. I looked back at Krenmyer.

Krenmyer studied me. He opened his mouth to speak, then shut it. A struggle fought itself across his face. I had seen part of his prison; I knew a small part about the armies that warred within him. One of them gained an advantage; it hadn't won—Krenmyer had a long trip to take to give that army victory. But it gained an advantage. He faced the audience. "Mister Colter and I . . ." He looked at me. He was wired tight; he was not allowed to . . . to trust. His prison walls did not allow it. Yet, there was a crack. He had seen a bit—enough. He was a scientist, after all. "Mister Colter and I will form a partnership. We . . . will be working together."

Starks laughed. "Well, this *is* a surprise!" He shook his head then looked at me. "Tell me, Marty. Will this new partnership be in the business of putting people *in* prisons, or busting them *out!*" The audience laughed. Krenmyer studied me, anticipating the answer.

I looked at Starks. "Yes."

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LETTERS

Dear Dr. Asimov,

I found Mr. Milton Rothman's article, "On Designing an Interstellar Spaceship," in your September issue, interesting—especially his novel wormhole jet concept. However, I do have one quibble.

Mr. Rothman dismissed the idea of a light sail as an impractical propulsion device for an interstellar ship. I would agree with him *if sunlight alone were used.* There are better means available; i.e., beamed power propulsion. Specifically, this calls for a battery of asteroid-based lasers to be used to push a large light sail outward. This method is best described by Thomas R. Schroeder in "Beyond Centauri" (*Astronomy*, April, 1978).

By using light sails in this manner, instrument probes could be sent to the nearer stars, on flyby missions, carrying only enough fuel for in-course manuevering. Manned missions would be more difficult, but in combination with fusion or ion rockets for braking, they might be achieved. Once a colony was established, though, a second laser array could be built, allowing for higher speeds and shorter travel time.

This seems more practical to me than carrying along immense quantities of fuel.

Sincerely,

Jim Gregory

A careful picture of interstellar travel on the basis of sailships might make for a good story, or series of stories. Just thought I'd mention it.

—Isaac Asimov

Dear Mr. Scithers:

I enjoyed the September issue of *IA'sfm* (or should I say the Tower issue?). Having five short stories for one cover is a splendid idea—but don't get too carried away with it. "A Tale of Two Cities" by Jack C. Haldeman II was good. It wasn't great—but it was good. Like his brother Joe, I've read about everything they've published, and if Jack is reading this letter, I'd like to say I enjoyed his novel, *Vector Analysis*—however short. I read it in one night.

I would think that if you published two stories by the same author you'd at least have one under a pseudonym (you do that with Barry

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Longyear/Frederick Longbeard). What I'm talking about is Sharon Webb's two stories. I thought magazines didn't put two stories with the same byline in them. And I'm also speaking for John Ford's two pieces. I enjoyed "Rare Bird" more than I did "Niche on the Bull Run." Sorry, Sharon, I haven't liked *one* Terra Tarkington story yet. How about "Snitch on the Bull Run" or "witch" or "which" (hah hah) or "bitch" (as another reader once suggested).

"When Chessmen Walked" . . . *oh!* Ghastly pun!

The September/Tower issue was the type of issue you put out that I like thoroughly—just a lot of short stories (I think your best is the November '79 issue—you had just a *lot* of stories in that issue). I really don't like issues with 30,000-word-long stories taking up half the space . . . though I still subscribe, nonetheless.

Congratulations! It was the right thing that Joel Davis buy *Analog*—now Davis Publications can sponsor the John W. Campbell, Jr. Awards for best new writers. Maybe now Mr. Davis will buy out *Galileo* or *F & SF* or *Galaxy* (if nothing else, he should buy poor Galaxy and get it back to a monthly). By the way, it's sad to hear that *ASFAdventure* 'zine is dead. That's a shame. (For both reading *and* another market to try to sell to.)

Hope your magazine lives for decades,

Michael A. Hemmingson
1631 Walbollen Street
Spring Valley CA 92077

Hiding the fact that the same author wrote two stories in an issue by use of a pseudonym doesn't change the fact. *Might it not be viewed as an effort to deceive the reader?*

—Isaac Asimov

Dear Mr. Scithers:

First things first; I have enclosed the standard SASE for a copy of your manuscript requirements and format. Thanks in advance for providing them.

I've just finished the September '80 issue and I'm experiencing the first serious disappointment of my two years of reading *IAsfm*. The editorial idea of grouping a number of stories around the same illustration didn't work for me. All five pieces seemed to be forcing the imaginations of their respective authors to just beyond the limits. Of the group, I liked "Dear Caressa" best and "Niche on the Bull Run" least. (The latter was a particular disappointment, since I've

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thoroughly enjoyed Ms. Webb's brand of humor in the other stories in this series.)

The best thing about this issue was Milton A. Rothman's excellent article "On Designing an Interstellar Spaceship." After passing over it to devour the fiction, I was impressed by his style and insights, albeit discouraged at the realization that I'll never physically travel to the stars. The Good Doctor (I couldn't resist saying it just once) and all his fellow SF authors have taken us all there in our imaginations.

Keep up the good work.

Cordially,

Kevin J. Boyle

One serious disappointment in two years isn't bad.

—Isaac Asimov

Dear Dr. Asimov and colleagues:

What can I say about your excellent magazine that hasn't already been said? That the stories and critiques are as entertaining as they are thought-provoking? That "new" authors such as Sucharitkul and Webb (whom I have a special affinity for as I work in a hospital) are an exciting break from dull hack-written formulas? That the *IA'sfm* staff seems to be as witty as they are charming?

While your blush equals my gush, let me discuss another matter. Some months ago (the March issue, I believe), you held forth on the issues of authorship and editorialship. One comment caught and held my attention: that you received a goodly volume of story submissions. Now I am not a writer. I admit that freely. But I am a reader. "Voracious" and "ravenous" do not adequately describe my appetite for the printed page. Thus I found that I couldn't sympathize with your picture of poor Mr. Scithers, et al, battling stacks of manuscripts when nothing would make me happier than to be a manuscript battler. It would be to my soul what chocolate would be to my taste buds (although I have a nagging suspicion that too many manuscripts, like too much chocolate, isn't good for you).

So, I'd like to make an offer: if you folks ever have an extra stack or two you just can't bear to tilt with, I'll read it. My SF tastes are catholic rather than critical, I confess, but it would solve the problem of never having enough SF to read (I find I cannot limit myself by the one-story-a-night gambit when I receive your magazine). It would also save me from the sordid desperation of reading backs of

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cereal boxes, soap wrappers, and bathroom cleaners. (Grammatically correct but dull.)

Keep up the good work.

Sincerely,

Sharon Perry
El Cerrito CA

You are kind and I will leave it up to George as to whether he will take you (or anyone) up on this. However, you may not know what you ask. The slush pile is for people of heroic stature.

—Isaac Asimov

Gentlemen:

As an SF addict of more than 25 years, I feel compelled to let you know how I feel about your magazine. I have been a subscriber for about two years, ever since my niece was selling magazine subscriptions for her school and I noticed the name Isaac Asimov. My only suggestion is please, don't change anything. While it is true that I don't like some of the stories as well as others, I have liked them all. Maybe I'm too easy to please, but that's the way it is. I suppose I don't make a very good critic.

Sincerely,

Max C. Theel
3205 N. 84th Terr.
Kansas City KS 66109

Very flattering, but please, the watchword of science fiction is "Change!" As time goes on, we are bound to change in one way or another or we will grow moribund.

—Isaac Asimov

To the editor:

The story "A Pestilence of Psychoanalysts" by J. O. Jeppson left me at the end with a feeling of obscure dissatisfaction; somehow the reader's enjoyment was spoiled. A rereading of it disclosed the irritant: The preceptor of the publication had perpetrated a peccadillo of his profession by prefixing the prime paragraph of this persiflage with a promo that purloined the penperson's punch line. (Please

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pardon the plethora of plosives.)

Psincerely,

Garth Peterson
Sioux Falls SD

You did do that, George. Any last words before the firing squad does its job?

—Isaac Asimov

Dear Dr. Asimov, Mr. Scithers, et al.;

First and foremost in this letter are my congratulations on Mr. Scithers's Hugo award. Equally I congratulate Barry Longyear (and you for finding and publishing him first) on his awards—Hugo, Nebula, and John W. Campbell. I am only sorry that the Good Doctor did not win for *In Memory Yet Green*. Perhaps he will win next year for *In Joy Still Felt*.

Continuing, I would like to tell you all what a joy it is to read your magazine. Five or six years ago during my introduction to all things SF I read some magazines that seemed to contain mostly "New Wave" SF—quite a shock at my then-tender age. This experience, I'm afraid, put me off magazine fiction with a vengeance. Imagine my delight then on finding your Winter 1977 issue. Thanks to Mr. Davis's stroke of genius in putting Dr. Asimov's name on the cover, I found a magazine that published my kind of SF. I've missed only one issue since that time, and I can say truthfully that it was the very, very rare occasion when I actually disliked a story or article published (especially not the puns). I find the book reviews useful, Dr. A's editorials interesting, the letters entertaining, the artwork consistently good to excellent, and the poetry a breath of fresh air. (Speaking of which, you haven't published many limericks lately—where are they? More *please!* My horizons, SF and otherwise, are broadening now (college and SF will do that to you), but even when both *Analog* and *IA'sfm* arrive in my mailbox on the same day, there will be no question as to which gets read first.

In closing I would like to add my two cents worth about the Horny Hake language controversy (though I know this is getting old). As a (supposedly) responsible adult who does not generally use or approve of crude language, I was surprised at the complaints in your letter department about Fred Pohl's excellent but sobering stories. You see, I hadn't even noticed that there *was* any bad language, so well was it integrated into the story. The language was a part of

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what those stories were about. Mr. Pohl simply does not use such language unnecessarily, nor does Mr. Scithers publish that which is out of place. I do not quite understand the complaints, but then there are those who disapprove of scantily clad young women in your artwork which doesn't bother me either (although I would much prefer good looking young men—other, of course, than the good Doctor's handsome visage—on the cover; equal time is only fair).

Thanks for a great magazine.

Melissa Wauford
Rt. 23 McCampbell Dr.
Knoxville TN 37920

No, no. It would have embarrassed me to win. The Science Fiction Encyclopedia *clearly deserved the Hugo over* In Memory Yet Green.
—Isaac Asimov

Dear George,

I have simply been blown away. I don't think I'll ever be the same again after hearing Sucharitkul's shattering story "Light on the Sound." I am a blind woman and I feel great sympathy for the character of Darktouch. My daughter read me the story, and when she was through I was totally in tears. Mr. Sucharitkul really understands what it is to be blind. I am dictating this letter to my daughter Karen. She often reads me SF magazines. Yours is the best. Thank you for publishing Mr. Sucharitkul's story.

Sincerely,

Janice Bevan

Dear Mr. Scithers,

Thank you for making my mother's life so joyful.

Yours sincerely,

Karen

No snappy one-liners here. The letter stands on its own.
—Isaac Asimov

Dear Isaac and George,

I am writing to let you know that your magazine is reaching the darkest interior of primitive Scotland (which is more than can be said for "McDonald's"—and they have the ethnic name going for

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them!) and is being devoured by the natives here. . .

Actually, when I say "natives," I can only speak for my friends and I, who send this message winging westward (OK—by Air Mail): "Keep up the good work—it is much appreciated!"

I particularly enjoyed Somtow Sucharitkul's evocation of Gallendys in the August edition, although I must confess to being puzzled by an apparently hurried and barely resolved final chapter. Nevertheless, this did not detract from my overall appreciation of a story well-told, which for me shed much colourful "Light on the Sound."

Henceforth, the monthly purchase of your magazine will be an imperative with this "clan" and, who knows, the proverbially mean (thrifty?) Scots may soon be taking out subscriptions for your publication in healthy numbers. After all, we know a sound investment when we see one!

Yours aye!

Stephen Coulson

How pleasant! I hereby appoint you and your fellow-natives a committee whose function it is to spread the good word.

—Isaac Asimov

Dear George, Isaac, Shawna, and all,

I hope this lands in the letter column. I'll tell you why: Blairsville is a far cry from Boston. I love it here; I wouldn't want to leave it, but the World Science Fiction Convention taught me something. It let me know that I need more feedback on my stories.

Writing is communication. What I put on paper isn't finished. It isn't finished until someone picks it up, reads it, and enters into the collaboration that makes a story complete. Without that collaboration on the part of the reader, the writer is engaged in little more than the arrangement of words on paper. And so I'd like to hear from anyone who cares to write. I'd like to know what works and what doesn't in my stories, as far as that reader is concerned. I will answer all letters that I receive. Any reader interested can reach me at Rt. 2, Box 350, Blairsville, GA 30512.

Finally, congratulations, George, on the Hugo. As you indicated when you accepted the award, that, too, was a collaboration. All of you at *IA'sfm* worked for it. All of you deserve it. May the Good Doctor find a way to clone that pretty silver rocket for each of you.

Sincerely,

Sharon Webb

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I've always admired writers who welcome outside comments and profit therefrom. I wish I could be like that—but I can't.

—Isaac Asimov

Dear Sirs,

I've been reading your mag since issue #2, and I think it's really great, but the last couple of issues leave a little to be desired. One thing I always liked about *IA'sfm* is that it has shorter (consequently more) stories than some other mags. The August issue was more than half taken up with one story. This wouldn't be so bad occasionally, but why did it have to be one of Somtow Sucharitkul's things? What's so great about those stories anyhow? WHY ARE THERE SO MANY OF THEM IN THIS MAGAZINE? Whose mag is this anyhow, Isaac Asimov's or Somtow Sucharitkul's? Besides not being able to pronounce his name, I can't stand his writing; reading a Sucharitkul story is like having your head pushed through a vat of thick oatmeal! I would never waste my money buying one if it wasn't in *IA'sfm*. What ever happened to good old non-acid-trip SF?

Sincerely,

Todd Stevens
Rt. 1 Box 57A
Mosier OR 97040

Well, by and large, the readers like Somtow; and George does, too. There's bound to be an opposition opinion, of course. Would you believe some people don't like my *stories. (Incredible!)*

—Isaac Asimov

NEXT ISSUE

Robert Silverberg, author of *Lord Valentine's Castle* marks his *IA'sfm* debut in the 11 May 1981 issue. "The Regulars" is vintage Silverberg—the tale of a rather . . . strange . . . bar. Also in the issue will be an "Adventure in Unhistory" by Avram Davidson. Mr. Davidson, well-known expert on everything, will give the definitive, once-and-for-all answer to the question, "Who Fired the Phoenix?" The cover story is "Moonbow," by J. P. Boyd, with a cover by George Angelini. On sale 14 April 1981.

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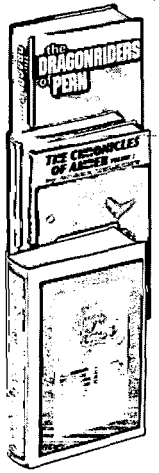

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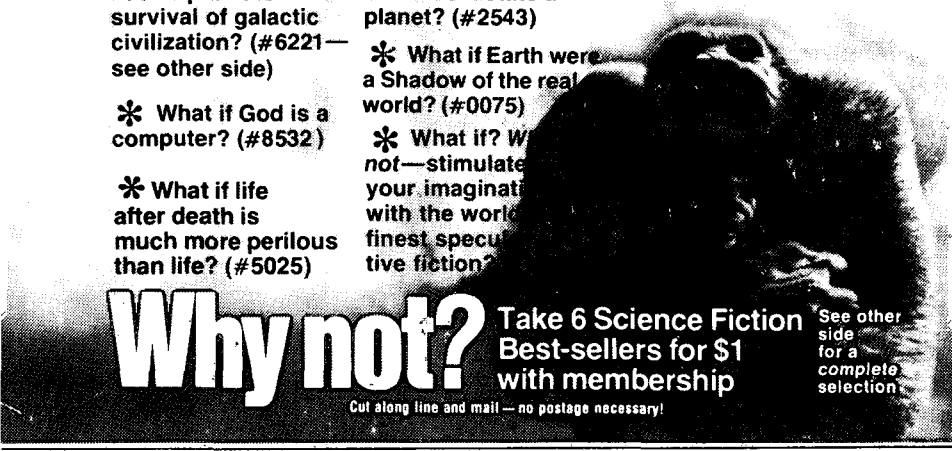

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